

FIFTY-EIGHTH
ANNUAL REPORT

OF THE

PRESIDENT AND DIRECTORS

TO THE

STOCKHOLDERS

OF THE

Baltimore and Ohio Railroad Co.

FOR THE YEAR ENDED 30th SEPTEMBER, 1884.

FIFTY-EIGHTH
ANNUAL REPORT

OF THE

PRESIDENT AND DIRECTORS

TO THE

STOCKHOLDERS

OF THE

Baltimore and Ohio Railroad Co.

FOR THE YEAR ENDED 30th SEPTEMBER, 1884.



BALTIMORE:

PRESS OF THE SUN JOB PRINTING ESTABLISHMENT



Digitized by the Internet Archive
in 2013

Fifty-Eighth Annual Report.

OFFICE OF THE
Baltimore and Ohio Railroad Company,

Baltimore, October 1st, 1884.

The President pro tem. and Directors submit to the Stockholders of the Baltimore and Ohio Railroad Company the following statement of its affairs for the fiscal year ended 30th September, 1884.

The Reports of the Treasury, Transportation, Road and Machinery Departments, and of the General Manager of the Trans-Ohio Divisions, are appended.

THE REVENUES.

The Revenues of the Main Stem, including the Winchester and Potomac, Winchester and Strasburg, the Strasburg and Harrisonburg, the Metropolitan Branch, the Washington City and Point Lookout, and the Somerset and Cambria Railroads, have been.....		\$11,506,957	76
Of the Washington Branch.....		335,944	29
“ Parkersburg Branch.....		643,163	56
“ Central Ohio Division.....		1,169,772	62
“ Lake Erie Division		1,016,507	95
“ Chicago Division.....		2,046,880	53
“ Wheeling, Pittsburgh and Baltimore Railroad.....		141,896	19
“ Pittsburgh Southern Railroad.....		112,125	16
“ Newark, Somerset and Straitsville Railroad.....		168,532	82
“ Pittsburgh and Connellsville Railroad (Pittsburgh Division).....		2,294,826	50
Total.....		\$19,436,607	38
Showing a decrease, compared with 1883, of....		303,230	55
And, compared with 1882, an increase of.....		1,052,731	66
And, compared with 1881, an increase of.....		972,730	12
And, compared with 1880, an increase of.....		1,118,867	28
And, compared with 1879, an increase of.....		5,242,626	95

I.—OF THE MAIN STEM.

The Assets and Liabilities of the Company are shown in statement A of the Treasurer. The Earnings and Working Expenses are shown in statement B.

The following analytic statement is given, in order to furnish particulars of expenses in comparison with the two preceding years.

MAIN STEM.

Statement of the Earnings and Working Expenses for the Fiscal Years 1882, 1883 and 1884, including the Winchester and Potomac, Winchester and Strasburg, the Strasburg and Harrisonburg, the Metropolitan Branch, the Washington City and Point Lookout, and the Somerset and Cambria Railroads.

	1882.	1883.	1884.
EARNINGS.	\$10,556,569 60	\$11,579,839 25	\$11,506,957 76
EXPENSES.			
General Expenses.....	\$198,227 40	\$200,733 89	\$202,031 74
Losses by Accidents, &c.....	72,048 95	56,609 68	48,339 97
Expenses of Transportation, including Express.....	2,258,207 54	2,486,047 39	2,740,303 65
Repairs of Railway.....	1,003,249 36	796,575 85	785,768 27
Repairs of Water Stations.....	10,590 80	13,039 13	18,074 62
Repairs and Construction of Depots.....	154,439 97	136,663 06	180,877 20
Repairs of Bridges.....	55,788 59	53,574 31	46,767 08
Repairs and Renewals of Telegraph Lines.....	39,204 30	76,781 20	162,397 88
Repairs of Stationary Machinery.	95,754 98	118,276 66	104,413 63
Watching Cuts.....	31,678 99	30,546 15	33,332 69
Watching Tunnels.....	4,551 90	5,451 67	5,101 36
Watching Bridges.....	18,663 16	18,736 53	19,525 86
Pumping Water.....	23,380 57	23,217 28	29,097 72
Repairs of Locomotives.....	654,236 92	624,146 36	580,037 86
Repairs of Passenger Cars.....	235,533 16	299,886 71	280,230 51
Repairs of Burden Cars.....	675,248 49	709,028 67	582,460 51
Cleaning Engines and Cars.....	83,908 82	92,415 36	96,950 10
Contingent Expenses of the Machinery Department.....	11,574 48	7,186 12	7,778 70
Fuel.....	327,305 20	319,143 36	324,238 74
Preparing Fuel and Filling Tenders.....	20,032 41	20,006 37	21,467 94
	\$5,983,625 99	\$6,147,655 80	\$6,269,216 03
Earnings more than Expenses...	\$4,572,943 61	\$5,432,183 45	\$5,237,741 73
Working Expenses.....	56 68 per ct.	53.08 per ct.	54.48 per ct.

It is shown that the earnings of the Main Stem and the Branches stated, in comparison with the fiscal year 1883, have decreased \$72,881.49, and the working expenses have increased \$121,560.23, making a comparative decrease of the net profits of \$194,441.72.

The expenses of working and keeping the roads and machinery in repair amounted to \$6,269,216 03, being 54 48 per cent. upon the earnings, showing an increase of 1.40 per cent. compared with the previous year, and a decrease of 2.20 per cent. compared with 1882.

Semi-annual cash dividends of five per cent. upon the capital stock were paid on the 1st of November, 1883, and on the 17th of May, 1884.

The Profit and Loss Account shows an increase for the past fiscal year of \$1,940,316.42. It will be seen by this account that the Surplus Fund, which represents invested capital derived from net earnings, and which is not represented by either stock or bonds, now amounts to \$47,703,796 31.

The exceptional and highly conservative system of the Baltimore and Ohio Company, without precedent in America or Europe, by which more than forty-seven millions of dollars of net earnings, unrepresented by stock or bonds, have been invested, during a long series of years, in valuable improvements and extensions, in connecting lines, in the great iron bridges over the Ohio river, in elevators, wharves, piers, docks, terminal facilities, real estate, stations, locomotives, cars, etc., readily enables the Company to continue the payment of semi-annual dividends of five per cent. each on its capital stock, which amounts to only \$14,783,900, a sum so limited as to present a marked contrast to that of all competing Trunk Lines. The Capital Stock of the New York, Lake Erie and Western Railroad is \$77,150,600; that of the New York Central and Hudson

River Railroad \$89,428,300, and that of the Pennsylvania Railroad \$92,619,750. This satisfactory condition, especially in view of the general depression in almost every industrial interest and branch of trade, and under continued serious and prolonged competition and frequent unwise action of antagonistic interests, shows that the Company, whilst continuing to effect excellent results for all holding investments in its property, can maintain a just policy, protective alike of the interests of its terminal cities and the regions with which it is connected.

The payments for investments on account of the Sinking Funds for the redemption of the Sterling Loans due in 1895, 1902, 1910 and 1927, during the year amounted to \$630,328.82, which at \$4.84 per pound sterling make £130,233..4..5.

In accordance with the agreement with the City of Baltimore, the ninth annual payment, namely, \$40,000, of the principal of the bond for one million dollars given for the purchase of the interest of the City in the Pittsburgh and Connellsville Railroad Company has been made, thus reducing this obligation to \$640,000.

The following statement shows the payments made and the increments in Sinking Funds during the fiscal year for account of the respective debts:

Increment of Sinking Funds for the redemption of the Sterling Loans due in 1895, 1902 and 1910.....	\$580,229 98
Payment on account of the principal of debt to the City of Baltimore for the purchase of its interest in the Pittsburgh and Connellsville Company.....	40,000 00
The Pittsburgh and Connellsville Sinking Fund.	30,776 68
The Baltimore and Ohio and Chicago Railroad Companies' Sinking Fund.....	50,098 84
The Washington City and Point Lookout Rail- road Company's Sinking Fund.....	5,865 00
Total.....	<u>\$706,970 50</u>

The following shows the aggregate of payments made on account of the principal, and the investments for Sinking Funds on account of the debts stated, namely:

Mortgage Loan, redeemable in 1880.....	\$123,000 00
Mortgage Loan, redeemable in 1885.....	790,000 00
Bonds of the Northwestern Virginia Railroad Company for \$500,000, endorsed by the Baltimore and Ohio Railroad Company, payable in 1885.....	360,000 00
Loan of the City of Baltimore.....	2,425,000 00
Sterling Loan, redeemable in 1895.....	1,779,412 00
Sterling Loan, redeemable in 1902.....	2,252,988 00
Sterling Loan, redeemable in 1910.....	1,247,904 00
Sterling Loan for the Baltimore and Ohio and Chicago Companies, redeemable in 1927...	309,760 00
Purchase of the interest of the City of Baltimore in the Pittsburgh and Connellsville Railroad Company.....	360,000 00
Sinking Fund of the Pittsburgh and Connellsville Railroad Company.....	203,044 00
Sinking Fund of the Baltimore, Washington and Alexandria Branch of the Washington City and Point Lookout Railroad Company.....	49,909 24
Total.....	<u>\$9,901,017 24</u>

The bituminous coals, for steam purposes, of the Cumberland, George's Creek and Elk Garden regions, which are more readily mined and with less labor than the coals of the Clearfield and other competing sections, and which reach tidewater at Baltimore by a shorter route than that of our rivals, have measurably regained that position in the coal markets of the country to which their old-established stand-

ing and superior quality entitle them. In order to protect the coal interests on its lines in Maryland and West Virginia from the underhand methods of rebates, private contracts and cutting of rates adopted by the Clearfield and competing regions, this Company, even although the rates were low, and in some cases unremunerative, fully met all such reductions, no matter in what form made, and notwithstanding the general business depression, the semi-bituminous coal trade, under this policy, shows an increase for the year of 653,293 tons. Should it again become necessary, the Company will pursue the same resolute policy of protection to the large and important coal interests on its lines. One thousand and eighty-two iron cars of the largest class have been added during the year to the coal-car equipment.

The coal trade of the Main Stem shows an aggregate of 3,268,521 tons, which includes 439,912 tons for the Company's supply. Of this quantity that transported for the public, delivered in Baltimore, is 2,227,352 tons, and that delivered at local and western points, 601,257 tons. In the fiscal year, 2,157,606 tons of coke and coal were transported on the Pittsburgh Division, and 966,548 tons of coal on the Trans-Ohio Divisions. The aggregate of coal and coke thus transported, including all Divisions, was 6,392,675 tons, showing an increase for the year of 715,838 tons, and an increase, compared with 1882, of 745,659 tons, with 1881 of 1,853,048 tons, and with 1880 of 2,003,819 tons.

It is shown by the report of the Transportation Department that the tonnage of through merchandise East and West has been 2,275,252 tons, whilst in the preceding year it was 2,108,325 tons. 717,258 barrels of flour and 11,553,052 bushels of grain were brought to Baltimore during the fiscal year, being an increase of 14,283 barrels of flour and a decrease of 1,278,709 bushels of grain as compared with the preceding year. Of this

aggregate of grain, 6,415,550 bushels were wheat, 3,472,940 bushels were corn and 1,469,916 bushels were oats, being a decrease of 232,045 bushels of wheat, 1,471,796 bushels of corn and an increase of 319,236 bushels of oats. A steady increase in the trade in oats and local grain is anticipated, through the economical accommodations afforded by the Company's new elevator at Camden Station, with a storage capacity of 258,000 bushels. In live stock, the traffic has been 82,187 tons, a decrease of 8,441 tons, and in lumber brought to Baltimore 107,398 tons, an increase of 13,132 tons.

The tonnage of through merchandise East and West, was:

For 1871....435,207 tons.	For 1878....1,149,499 tons.
" 1872....557,609 "	" 1879....1,425,629 "
" 1873....640,265 "	" 1880....1,980,397 "
" 1874 ...752,256 "	" 1881....2,014,110 "
" 1875....872,101 "	" 1882....2,043,227 "
" 1876.. 1,093,393 "	" 1883....2,108,325 "
" 1877.. 1,047,645 "	" 1884....2,275,252 "

The passenger earnings of the Main Stem exhibit an increase from \$2,020,284.00 in the preceding year, \$1,922,401.17 in 1882, \$1,714,922.16 in 1881, and \$1,379,990.34 in 1880, to \$2,076,684.16.

All the tracks of the Main Stem and of nearly all the Branches east of the Ohio river, are now laid with steel rails. The increased cost of steel substituted for iron rails has been uniformly charged to the Repair Account.

The condition of the road bed, tracks and engines has been maintained at a high standard. A large number of new sleeping coaches, parlor and thoroughfare cars have been added, replete with every modern improvement and convenience.

Attention is invited to the Reports of the Masters of Transportation, Road and Machinery, and of the General Manager of

the Trans-Ohio Divisions, in which will be found much interesting information in regard to the working of the roads, the increase of plant and accommodations, and improvements made during the year.

A new passenger car shop, circular in form, has been erected at Mount Clare. It was finished in February last, and cost \$100,471.97. It is of brick, with slate roof, is 245 feet in diameter, and contains 22 stalls, with iron turn-table in the centre of 60 feet diameter. The structure is fire-proof throughout, and is regarded as the finest of its class in the country, combining as it does the greatest light and ventilation with the maximum economy of working. But large as were the facilities of the Company at its Mount Clare and other shops for building cars, it resolved to add to them, so as to possess a capacity which would readily enable it to meet any demand, by purchasing from the Buckeye Car Manufacturing Company the car works at Columbus, Ohio, covering, with the subsequent additional purchases, 25 acres. Their entire cost, with some improvements added since the date of purchase, has been \$88,673.24. With the view of keeping its forces employed, and also of availing of the reduced cost of materials which resulted from the general business depression, the Company decided to build, at its own shops, extensive additions to its car and locomotive equipments. It thus secured first-class materials at reasonable prices and workmanship of the best class. The equipment added during the year, both of locomotives of the most powerful and modern class and of cars of great capacity, has been the largest in the history of the Company, the sum of \$2,274,277.59 having been expended in building 40 engines and 4048 cars. The Company now owns 662 engines and 21,562 cars, which are in the most effective condition, and, as this large equipment has been acquired without the intervention of car trusts or intermediate agencies of any description,

its ability to handle an immense traffic promptly and economically is readily apparent.

Forty engines were built at the Company's works at Mount Clare, namely: 13 of the largest class for freight service, and known as the Consolidation, each weighing 107,250 pounds, with cylinders 20 by 24 inches, 50-inch driving wheels, 8 drivers connected, with a 2-wheel pony truck; 19 for freight service on the Trans-Ohio Divisions, and known as the Mogul, each weighing 98,000 pounds, with cylinders 19 by 24 inches, 60-inch driving wheels, 6 drivers connected, with a 2-wheel pony truck; 8 for passenger service, each weighing 91,000 pounds, with cylinders 19 by 24 inches, and with 4 drivers, each of 69 inches in diameter. Of the number constructed, 29 engines, costing \$263,044.96, have been charged to Rolling Power, and 11, costing \$96,654.31, which replace that number withdrawn, because their capacity and patterns were not adapted to the present requirements of the service, have been charged to the Repair Account.

Three thousand five hundred and eighty-two cars have been built and rebuilt at Mount Clare and other shops of the Company, and 458 iron coal cars and 8 flat bottom have been purchased. The cars thus built, rebuilt and purchased include: 30 8-wheel superior passenger, 1 officers', 7 baggage, 5 express, 1,606 house, 1,082 iron coal, 871 gondola, 312 stock, 66 flat bottom, 38 caboose, 22 side dump, 3 dump, 2 riggers, 1 refrigerator, 1 derrick, and 1 camp. All the freight and iron coal cars are eight-wheeled, and have a capacity of 40,000 pounds, being nearly double that of the cars formerly used in the service. Of this aggregate of 4,048 cars, 3,652 being new and additional plant, and costing \$1,772,023.64, have been charged to Rolling Power. Three hundred and ninety-six cars were built to replace that number worn out and destroyed, and

their cost, \$142,554.68, has been charged to the Repair Account. Five hundred and thirteen cars have received thorough repairs, 233 have been repainted, the capacity of 177 has been increased from 26,000 to 40,000 pounds, and 40 house cars have been arranged for ventilation. The cost of these repairs and improvements, \$187,660.94, has been charged to the Repair Account. The fixed policy of the Company is to continue to add largely to its effective plant, by which its increasing business and the commerce of the port of Baltimore can be thoroughly accommodated and promoted.

II.—OF THE WASHINGTON BRANCH.

The financial condition of the Washington Branch is shown by the statements of the Treasurer, D, E and F. It will be seen by statement E that the earnings were \$335,944.29, showing a decrease of \$10,560.98 compared with the previous year. The expenditures charged, according to the system explained in previous annual reports, amount to \$155,613.14, being for improvements and for repairs of railway, depots, water stations and bridges, and for pumping water. The partial expenditures charged being deducted from the revenue stated, the sum of \$180,331.15 remains, a decrease of net earnings, compared with the preceding year, of \$41,916.60. The expenditures upon the Washington Branch show an increase, compared with the preceding year, of \$31,355.62. In order to make this Branch as perfect as possible, important improvements continue to be made, particularly in the substitution of stone for gravel ballast. It is designed to make the road free from dust, and to perfect it in every practicable form. This is particularly desirable, in view of the early completion of this Company's road between Baltimore and Philadelphia. On the opening of this new line, it is

expected that the time between Baltimore and Philadelphia will be reduced to two hours, between Washington and Philadelphia to three hours, between Baltimore and New York to four hours, and between Washington and New York to five hours. Semi-annual dividends of five per cent. upon the capital stock were paid on the 1st of November, 1883, and on the 17th of April, 1884.

III.—OF THE PARKERSBURG BRANCH RAILROAD COMPANY.

Statement G of the Treasurer shows that the earnings of this road for the fiscal year were \$643,163.56 and the working expenses \$501,440.42, showing net \$141,723.14. The earnings were \$95,363.70 less than in the previous year, and the expenses increased \$22,974.66, showing net decrease, compared with the previous year, of \$118,338.36, and an increase, compared with 1882, of \$33,652.27.

The aggregate earnings, working expenses and net results of the Main Stem, including the Winchester and Potomac, Winchester and Strasburg, the Strasburg and Harrisonburg, the Metropolitan Branch, the Washington City and Point Lookout and the Somerset and Cambria Railroads; of the Washington Branch and the Parkersburg Branch Railroads; the Central Ohio, Lake Erie, Chicago and Pittsburgh Divisions; the Wheeling, Pittsburgh and Baltimore, the Newark, Somerset and Straitsville, and of the Pittsburgh Southern Railroads, for the fiscal year, were, viz:

	Earnings.	Expenses.	Net Earnings.
Main Stem, including the Winchester and Potomac, Winchester and Strasburg, the Strasburg and Harrisonburg, the Metropolitan Branch, the Washington City and Point Lookout, and the Somerset and Cambria Railroads.....	\$11,506,957 76	\$6,269,216 03	\$5,237,741 73
Washington Branch.....	335,944 29	155,613 14	180,331 15
Parkersburgh Branch.....	643,163 56	501,440 42	141,723 14
Central Ohio Division.....	1,169,772 62	793,134 76	376,637 86
Lake Erie Division.....	1,016,507 95	754,808 14	261,699 81
Chicago Division.....	2,046,880 53	1,557,892 57	488,987 96
Newark, Somerset and Straitsville Railroad.....	168,532 82	167,775 25	757 57
Pittsburgh Division.....	2,294,826 50	1,252,694 68	1,042,131 82
Wheeling, Pittsburgh and Baltimore Railroad.....	141,896 19	128,274 78	13,621 41
Pittsburgh Southern Railroad...	112 125 16	95,457 31	16,667 85
Working Expenses, 60.07 $\frac{7}{100}$ ct....	\$19,436,607 38	\$11,676,307 08	\$7,760,300 30

The net earnings of the Chicago Division, of the Wheeling, Pittsburgh and Baltimore Railroad, and of the Lake Erie Division, have been credited to the accounts for interest of those Companies.

The aggregate working expenses of the Main Stem, with all Branches and Divisions, were 60.07 per cent. of the whole gross revenues, being 4.18 per cent. more than the preceding year, and $\frac{63}{100}$ of 1 per cent. more than 1882.

The condition of all our lines, their roadbeds, tracks, and structures, has not only been fully maintained, but continuously and permanently improved.

THE PITTSBURGH AND CONNELLSVILLE RAILROAD.

The earnings for the year ended September 30, 1884, were.....	\$2,294,826 50
The working expenses for the same period were.....	1,252,694 68
being 54.50 per cent.	
Showing net earnings.....	\$1,042,131 82

The earnings were \$518,345.91 less than those of the previous year, and the expenses decreased \$82,202.87, showing net decrease compared with the preceding year of \$436,143.04. The increase in the ratio of working expenses has been 7.05 per cent. as compared with the preceding year. The decrease in earnings was caused by the general stagnation in the iron, coal, coke and manufacturing industries, and the consequent low rates received for the work performed, and also by the interruption to the business of the Road from the unprecedented floods of February and March. The same reasons, combined with the large expenditures required to repair the damages which the floods occasioned, led to the increase of expenses.

After paying the interest on the \$4,000,000 seven per cent. first mortgage bonds, \$280,000; the interest on the Turtle Creek bonds, \$19,596; the interest on the Sterling Consolidated Mortgage bonds, \$379,065.20; and the interest on the amount held by the Sinking Fund, \$4,831.84, making a total of \$683,493.04, there remains an excess of net earnings of \$358,638.78.

In addition to constructing 22 miles of double track and new station houses, and building a new round house, and machine, car, blacksmith and paint shops at Pittsburgh, much progress has been effected in widening and arching Brook and Pinkerton tunnels. The cost of these additions and improvements was \$753,541.25. The new strength and revenue which the system of the Pittsburgh Division will receive from the interchange of traffic with Cincinnati, the south-west, and the leading Western cities, and with Cleveland and the lake regions, by the completion of the Junction road in Pittsburgh, the improvement of the line of the Pittsburgh Southern, the opening next month of the Cincinnati Midland from Columbus, and the arrangements with the Pittsburgh and Western, and the Pittsburgh, Cleveland and

Toledo roads will, it is believed, fully warrant the large expenditures made during the year to increase and improve the facilities of this important line.

BALTIMORE AND OHIO AND CHICAGO RAILROAD COMPANIES.

The earnings of these companies, known as the Chicago Division of the Baltimore and Ohio Railroad Company, for the fiscal year were.....\$2,046,880 53

The working expenses for the same period were... 1,557,892 57

76.11 per cent., being 6.65 per cent. more than the preceding year. _____

The surplus for credit to the account of this

Division is.....\$488,987.96

The earnings were \$168,713.31 more than in the previous year, whilst the expenses increased \$253,228.47, showing a comparative decrease of \$84,515.16.

The interest paid upon the five per cent. sterling loan of £1,600,000 taken for account of these companies, amounted during the year to \$390,954.14, and the taxes to \$60,369.22. The taxes paid, \$60,369.22, being deducted from the net earnings, \$488,987.96, leave \$428,618.74, which have been credited in the interest account of the Main Stem, in which is charged the interest paid for the Baltimore and Ohio and Chicago Railroad Companies' loan of 1927.

NEW LINE BETWEEN BALTIMORE AND PHILADELPHIA.

The Baltimore and Ohio Railroad Company, under resolutions adopted unanimously by the stockholders, is building the Philadelphia Branch, from a point of connection with its Main Stem to the northern boundary line of Cecil county, in the State of

Maryland, where it connects with the road which the Baltimore and Philadelphia Railroad Company is constructing through Delaware by way of Wilmington and into the City of Philadelphia. Work has progressed rapidly during the year, and, unless the severity of the winter prevent, the entire road between Baltimore and Philadelphia will be in operation about July of the coming year. The bridge spanning the Susquehanna river is a work of magnitude, and will be one of the largest and most remarkable structures of its class in the world. It is the determination of the Company that it shall be of the most substantial, safe and durable character. It will be 6,346 feet in length, 94 feet above mean low tide, and will rest on 11 granite piers, having their foundations on the bed rock of the river, of from 116 to 179 feet in height, with an area of 12x35 feet at the top. Large and substantial starlings, or ice-breakers, have been added to the general dimensions of the water piers. The foundations for six of the piers have been difficult, reaching, as they do, a depth of 85 feet below low water, and necessitating the use of caissons with air chambers, in which the men, engaged in removing the debris in order to reach bed rock, have worked under pressure of 37 lbs. per square inch. Much of the masonry for the foundations and piers has been placed, and all will be finished about the time the superstructure is ready. The pneumatic caisson foundation work will be completed about the 1st of December. The superstructure will be of steel. It has been let to the Keystone Bridge Company for delivery and erection in the early spring, and will consist of seven deck and two through spans. The lengths of the deck spans will be: one of 520 feet, four of 480 feet each, one of 375 feet and one of 200 feet. The two through spans will be 520 and 375 feet respectively. There will be 2,288 feet of iron viaduct, averaging 67 feet in height, for the construction of which, in the shops of the Company, arrangements have been

made. All the other bridges on the line between Baltimore and Philadelphia will be of iron, and will be built at the shops of the Company.

TELEGRAPH, EXPRESS AND SLEEPING AND PARLOR CAR ORGANIZATIONS.

The policy of the Company in owning and operating its expresses, telegraphs, sleeping and parlor cars, elevators, etc., continues satisfactory. The results of operating its own sleeping cars have been 92 per cent. better than when under the control of the Pullman Company, and the gain to this Company by operating its own expresses has been 61 per cent. over the period when the lines were controlled by the Adams and other companies.

This Company has been engaged for many years in contests with the Western Union Telegraph Company to regain and hold possession of its telegraph property, and it is gratifying to announce that the equities of its position have been thoroughly vindicated on all occasions when the questions have been submitted to the courts. The Telegraph system of the Company is, therefore, now entirely under its own control. The policy laid down by the late President in his address to the Board in June, 1882, in which he announced that the Baltimore and Ohio Company, "had deliberately determined to maintain the absolute independence of its telegraph system," and that it intended to effect "such connections as would enable it to maintain firmly and successfully its independence as a great competing organization," and that in furtherance of that policy it would "continue to enlarge its capacity to meet all requirements," has since been continuously acted upon, until the Baltimore and Ohio Telegraph system now represents 6,886 miles of poles, and 47,417 miles of

wires, in the acquisition of which there has been expended, during the fiscal year \$2,012,000. The Company now has a telegraph system twice as large as that of the Atlantic and Pacific, which was sold in 1881 for \$8,500,000 in stock of the Western Union Company, and one and one-quarter times as large as that of the American Union, which was sold for \$15,000,000 also in the same stock, and by the close of the year it will have a mileage nearly as great as both of those companies combined, whilst the location and character of its lines render them far more valuable. President Bates, of the Baltimore and Ohio Telegraph Company, who has recently inspected the property, states in his report that the lines are thoroughly and strongly built; that the offices are well located, and that the staff is active and efficient. The expenditures for the past year have been made at a time when material was obtained at a reduction of at least 15 per cent. below the lowest prices at which any lines were ever constructed in this country. The system exceeds in capacity that of any other competing Telegraph Company, and between the two great cities of the east and the west is believed to have facilities equal to that of any company. Looking at its cost compared with that of the system of its main competitor, it is believed that it can obtain and hold such a volume of business as will yield very satisfactory net results from the expenditures. The public have already received and will continue to receive, advantages and economies from the competition offered by a system of such strength, permanence and magnitude. Since the Company commenced its own commercial system in 1877, its telegraph expenses, incident to its railroad business, have been reduced fully forty-three and one-half per cent., whilst its receipts from railroad business have increased fifty per cent. It is believed when the system of telegraphs created by the Bal-

timore and Ohio Company has been perfected, that the operating expenses of the Telegraph Department for railroad business will be further reduced.

The bonds and stock of the Baltimore and Ohio Telegraph Company, a separate corporate organization, to be issued to the Railroad Company for the advances of the latter in the construction of the telegraph lines, are in course of preparation, will soon be in the Company's treasury, and will constitute a very valuable asset.

SOUTH BRANCH RAILWAY.

Under contracts entered into on the 1st day of September, 1883, between the County Court of Hampshire County, West Virginia and this Company, and on the 12th day of October, 1883, between this Company and the South Branch Railway Company, the South Branch Road has been completed and is now in operation from Green Spring (164 miles from Baltimore) to Romney, a distance of 16 miles. This line reaches the fertile valley of the South Branch of the Potomac, and opens up vast tracts of timber land. It will be an important feeder to the Main Line, and will also enable this Company to satisfactorily handle the large cattle shipments from the Moorefield valley.

FAIRMONT, MORGANTOWN AND PITTSBURGH RAILROAD.

In pursuit of the policy of developing the territory tributary to its system, the Baltimore and Ohio Company is furnishing to the Fairmont, Morgantown and Pittsburgh Railroad Company the necessary capital for the construction of its line, extending from Fairmont, in West Virginia, by way of Morgantown, to the Pennsylvania State line, a distance of 34 miles, at which point it is expected to join the State Line Railroad for Uniontown, Pa., thus forming a direct connection between the Main

Line and the Pittsburgh Division via the Monongahela valley. Construction was commenced in April last, under favorable contracts for graduation and masonry, and has been pressed vigorously. The sum of \$153,104.57 has been expended to September 30th. 46 per cent. is tangent, the maximum grade does not exceed 15 feet to the mile, the shortest curve is 1,195 feet, thus making a line that can be worked advantageously and cheaply. Including a bridge of 4 spans, one of 240 feet and three of 140 feet each, over the Monongahela river, the road will be completed and ready for operation in the coming spring. The Monongahela valley, which the line traverses, is noted for its fine grazing lands, and a large number of cattle are fed and shipped from this section annually. Superior semi-bituminous, gas and coking coals abound in this entire region, and crop out, with veins of from 4 to 9 feet in thickness, at several points along the line, and the adjacent country is rich in superior timbers. The prospects are excellent for a large and valuable local traffic.

VALLEY RAILROAD OF VIRGINIA.

The Valley Railroad of Virginia, now comprising 62 miles, was completed to Lexington on the 1st of November, 1883, thus establishing a connection with the Richmond and Allegheny Railroad at that point for Lynchburg and Richmond, and opening up new and favorable routes to southern and southwestern Virginia. Notwithstanding the general depression in the iron and coke industries, the net income of the Valley Railroad has been \$43,715.62 for the past year, its fixed charges being \$45,000 per year. As the extension to Lexington was completed on the 1st of November, 1883, these results are for a period of but 11 months, thus making it reasonably certain that the road will have, during the coming year, a surplus beyond its fixed charges.

OHIO AND BALTIMORE SHORT LINE.

Contracts have been made for the tunnels and other portions of the heavy work on the Ohio and Baltimore Short Line, with the view of letting the lighter work at such future period as will secure the simultaneous completion of the entire road between Connellsville and Washington, Pa., a distance of 45 miles. This important and valuable road will not only traverse a rich and productive territory, but will shorten the distance to the West 25 miles, and, in addition to affording a line of much improved grades and curves, will be the most direct route between the Connellsville coke region and the leading Western cities and manufactories. It also shortens, by 45 miles, the distance between the Connellsville coke fields and the great manufacturing city of Wheeling, W. Va.

PITTSBURGH SOUTHERN RAILROAD.

The Pittsburgh Southern Railroad, which was opened for traffic in August, 1883, has been placed in thorough order, and has realized the expectations of this Company as to its great value as a connection from Pittsburgh to the West via Wheeling and the Trans-Ohio lines. Notwithstanding the depressed condition of the iron and coke industries, the business has developed to such an extent as to require the construction of a bridge over the Monongahela river at Glenwood, thus dispensing with the ferry at that point. The bridge is 3,100 feet in length, and the iron superstructure has been constructed at the Mount Clare shops of the Company. The masonry is finished, four spans are in position, and it is expected that the structure will be completed and ready for traffic about November 1st. A connection has been made between the Pittsburgh Southern Road and the Ohio and Baltimore Short Line at Zediker, 4 miles east of

Washington, Penna., in order to shorten the distance and avoid the heavy grade and sharp curvature of the Pittsburgh Southern near Washington, as well as to utilize the superior location of the Ohio and Baltimore Short Line through Brady's tunnel.

PITTSBURGH JUNCTION, PITTSBURGH AND WESTERN, AND
PITTSBURGH, CLEVELAND AND TOLEDO RAILROADS.

During the year the Pittsburgh Junction Road, which is controlled by this Company and its allied interests, and which connects at Pittsburgh with the Pittsburgh Division, has been completed through that city by tunnel and elevated road, and thence by a fine iron bridge over the Allegheny river to a junction with the Pittsburgh and Western Road. It has been built in the most permanent and substantial manner, with double track throughout. The extension of its branches is being rapidly prosecuted to the numerous and extensive manufactories along the Allegheny river front in Pittsburgh, and, when finished, will make the position of the Baltimore and Ohio Company in that city superior to that of any other railroad company.

The Pittsburgh and Western Railroad Company has leased the Pittsburgh, Cleveland and Toledo Railroad. Satisfactory relations have been established between this Company and those interests, enabling it to form a most favorable route to Akron, Ohio, to the lakes at Cleveland, and to the great manufacturing districts of the Mahoning and Shenango valleys. It is also, by fifty-one miles, the short line between the great lakes at Cleveland and the National capital at Washington. In addition to the large local business originating on these lines, in which this Company will participate, this route opens up to these regions, to the Pittsburgh Division, to the entire system of this Company, and to the manufacturing and other industries connected there-

with, new and additional markets and sources of revenue for their rich and valuable mineral and other products.

COLUMBUS AND CINCINNATI MIDLAND RAILROAD.

This important road is seventy-one miles in length, is controlled by co-operative and friendly interests, and will be completed and opened for traffic during the coming month. It extends from Columbus, Ohio, through Washington Court House to Clinton Valley, on the Cincinnati, Washington and Baltimore road, and is the shortest line between Columbus and Cincinnati. It will be operated in connection with the Central Ohio, the Ohio and Baltimore Short Line, and the Pittsburgh Southern road, making a direct and excellent route for passengers and freight between Pittsburgh and the Pittsburgh and Connellsville road, and the city of Cincinnati and the Southwest. Heretofore all traffic commanded by the Pittsburgh Division for Cincinnati, St. Louis, Louisville and beyond—and which the construction of the Pittsburgh Junction road in Pittsburgh will largely increase—has been delivered at Columbus to rival lines; and notwithstanding the favorable position of the Baltimore and Ohio Company in these great and leading cities, it has been unable to compete for their large passenger and freight business for Wheeling, Pittsburgh and Northeastern Ohio, Western Pennsylvania and Western New York. The construction of this effective line gives to these cities and regions a new competitor, and furnishes this Company with additional business and revenues.

LOCAL DEVELOPMENTS.

Commodious, substantial and attractive station houses or depots, built of brick, with slate roofs, and with all modern conveniences for the comfort of passengers and for the safety of freights, have been erected during the year at Laurel, Hyatts-

ville, Woodstock, Sykesville, Summit Point, Gaithersburg and Mountain Lake, and others are in course of erection at Oakland and Parkersburg. In furtherance of its policy of fostering and developing at all points on its system the construction of dwelling houses and the establishment of manufacturing and industrial enterprises of every description, this Company has announced its readiness to make liberal reductions from its local tariffs. The Baltimore and Ohio road passes through a territory which is both healthful and beautiful, affording numerous admirable sites for building. This territory, as a rule, enjoys genial winters and favorable climatic conditions. The lands on, adjacent to and connected with the system of the Baltimore and Ohio Company and its connections are not only reasonable in price, but are also rich and fertile, well wooded and watered, and are excellently adapted for agriculture, stock raising and grazing. Their proximity to large cities and towns, as well as to the unsurpassed export facilities of the port of Baltimore, will afford remunerative markets for their products. The regions which the lines cover are also noted for immense water-power, rich deposits of ores and minerals, many varieties of woods, timber and building materials, and for superior coals for steam and gas purposes. These important factors must continue to command appreciation and development.

BALTIMORE AND OHIO EMPLOYEES' RELIEF ASSOCIATION.

This Association continues to prosper and increase in usefulness. It has now a membership of 17,798, and the payments for their benefit during the year have been \$216,945.48, making an aggregate, since the inauguration of the Association, of \$766,208.49. Renewed attention has been given to the sanitary condition of localities on the road, to the shops and their surroundings, and special efforts have been made to prevent disease

among the Company's employés by the judicious distribution of remedies which experience has shown to be valuable. Prior to admission into the service medical examination is required.

To enable the Baltimore and Ohio Employés' Relief Association to further extend the good which it has already accomplished, this Company, by the action of the Board of Directors, has decided to add \$25,000 annually to its former yearly contribution, to be devoted to a fund known as the Pension Feature, by which provision is made for its aged and infirm employés. The work of the Association now embraces benefits to its members when injured, when sick, when aged or infirm, and after their death also provides for payments to their representatives.

The Savings Fund and Building Features continue to grow in favor. The deposits during the year amounted to \$99,220.69, making the aggregate deposits \$181,776.04. The greater portion of this sum has been loaned to members for the purchase and improvement of homesteads upon the lines of the Company, so that, through the working of these features of the Association, many employes have been enabled to become owners of the dwellings in which they reside.

WIDENING OF THE CHANNEL TO THE PORT OF BALTIMORE TO FOUR HUNDRED FEET.

The completion of the work of deepening the channel to twenty-seven feet at mean low water is attracting renewed attention towards the port of Baltimore from owners of steamships engaged in foreign trade. The Johnston line, one of the lines plying between Baltimore and Liverpool, have added to their fleet two new modern steamships of large draught, each with a dead-weight carrying capacity of 5,000 tons. In view of its

geographical advantages, and the large territory which uses Baltimore as a port of export and import, it was anticipated that Congress, at its last session, would appropriate a sum sufficient to widen the channel to four hundred feet, so as to make navigation easy and safe for large-sized steamships. The work of widening the channel to three hundred feet is actively in progress, but as this will absorb the entire appropriation, an additional \$200,000 will be needed from Congress to secure a width to the channel of four hundred feet.

CHESAPEAKE AND DELAWARE SHIP CANAL.

Interest and attention continue to be manifested for the construction, so valuable and desirable for commercial and for naval and military purposes, of a ship canal connecting the Chesapeake and Delaware bays. The Secretary of the Navy refers to this important enterprise in his annual report, dated December 1st, 1883, namely:

“Coast Defences.—There is one measure of National defence in regard to which the argument cannot be made, as in the case of ships and guns, that modern discovery is likely to make such improvements in the art of construction that action might for the present be deferred. This is the creation of an interior coast line of water-ways across the head of the peninsula of Florida, along the coast from Florida to Hampton Roads, *between the Chesapeake Bay and the Delaware*, and through Cape Cod. * * * * To secure the combined commercial and military advantages which those avenues for merchant and naval vessels would afford, work should be immediately begun and deliberately and economically prosecuted, and not left to be done hastily and expensively in an emergency.”

The President of the United States, in his annual message delivered to Congress, on December 4, 1883, also alludes to the recommendation of the Secretary of the Navy as an important measure of National defense.

The Secretary of War has transmitted to Congress the communication of Lieut.-Col. Craighill, concurred in by Brig.-Gen. H. G. Wright, recommending the creation of a commission, composed of an officer of the army and an officer of the navy, of high rank, an officer of the corps of engineers and two civilians, to report as to the best of the three routes heretofore surveyed, and in view of the objects, both national and commercial, which will be gained by this ship canal, the construction of which will so favorably affect so many large interests and vast sections of the country, it is believed that Congress will, at an early day, authorize the commencement of the work.

The Board express with pleasure their continued appreciation of the successful management of the business of the Company, through the faithfulness and efficiency of the officers and employés in all departments of the service.

By order of the Board,

ROBERT GARRETT,

President pro tem.

A special meeting of the Board of Directors of the Baltimore and Ohio Railroad Company was held at the office of the Company, in Baltimore, September 26, 1884, Mr. Wm. F. Burns in the chair.

The Chairman, after calling the meeting to order, stated that the occasion of convening it was doubtless understood to be the death of the eminent and distinguished man who had so long presided over the deliberations of the Board of Directors, and conducted the affairs of the great corporation under their charge with such remarkable ability and with such extraordinary success. With no purpose of indulging in extended remarks, such as the great loss which the Company had sustained might naturally suggest, the Chair would leave it to the Board of Directors to take such action as in their judgment would be proper on the occasion.

Whereupon Mr. Ulman moved that a committee of three, representing the interests of the State of Maryland, the City of Baltimore and the individual stockholders, be appointed by the Chair to prepare resolutions expressive of the feeling of the Board of Directors on the loss that has been sustained in the death of John W. Garrett, late President of the Baltimore and Ohio Railroad Company.

The Chair then appointed Joseph B. Brinkley, director on the part of the State of Maryland; B. F. Ulman, director on the part of the City of Baltimore; John Gregg, director on the part of the individual stockholders.

The committee then retired for deliberation. On its return the Chairman presented the following report:

"The committee appointed to prepare resolutions expressive of the feeling of the Board of Directors on the loss that has been sustained in the death of John W. Garrett, late President of the Baltimore and Ohio Railroad Company, reports that it would be difficult to express in formal words the sense of the loss that has been sustained, not only by the Board of Directors, but by the Company in all its extended ramifications, as well as by the com-

munity which has so vital an interest in a work to which the late President not only devoted all the energies and persistent force of great talents and ability, but to which, by his unremitted labors, he may be truly said to have sacrificed his life at a time when, otherwise, he might still have been in the enjoyment of its prime.

"When Mr. Garrett was made a director in the Company to fill a vacancy created by the resignation of Mr. Andrew Gregg, in 1855, he brought to a performance of the duties of the office the knowledge that he had acquired as a member of the firm of Robert Garrett & Sons, whose large Western business made it familiar with the wants and capabilities of the vast country which, at a later date, was to find in the Baltimore and Ohio Railroad one of its most important avenues to the Atlantic seaboard. With these wants and capabilities no one was more familiar than our late President, who had, by extended travels beyond the Alleghanies, made himself personally familiar with them all. With him the connection with the Southwest, the West and the Northwest, which he afterwards accomplished, was but the realization of the views he entertained when, in 1858, he took charge, as President, of a road that was still lingering on the eastern bank of the Ohio river. Nor were his efforts in this direction unobstructed by rivals who understood as well as he did the wants and capabilities that he was striving to meet and make available for the benefit of Baltimore. With steady perseverance, however, he overcame all opposition, until now our city is in daily intercourse, over the roads that he prosecuted and controlled, with the lakes at Chicago, with the Pacific ocean through St. Louis, and, it may be said, through an extension still in progress with the Gulf of Mexico at New Orleans. It was a mighty grasp that gathered in all this from a single depot on the banks of the Ohio. But the trade that was thus to be concentrated was to be provided with an outlet eastward across the Atlantic, and we find the same energy that had accomplished so much in

one direction devoting itself in another, until the grain of the West was garnered in the elevators which he provided, and vessels from Europe were furnished with a channel and a harbor equal, if not superior, in its acceptability, to New York itself, a result which if not brought about by the immediate agency of the Company over which our late President presided, was procured through means made active by the energy and activity that he infused into their application. Nor was it to the roads and water approach alone that his talent and energy were devoted. The interests of the thousands of the employes who on either side of the Ohio river aided in the great work to be accomplished became to him a work of primary importance; and at this day the association of twenty thousand workmen find their happiness and their comfort in the system originated by him for their benefit and improvement, providing for them in case of sickness, for their families in case of their death—insuring their lives, and enabling every one of them to become, if he so wills, the owner of his own home and fireside.

“Mr. Garrett was a rare and singular combination of exactitude in the minutest matters, with the broadest and most comprehensive and statesmanlike views, embracing the whole country in the grasp of his intelligence. It was the economy in details in 1858, and years afterwards, which saved the Company from ruin, and which, persisted in, made it what it is to-day. Nor must it be forgotten, while enumerating the qualities and work of our late President, that he was throughout sustained by Directors whose appreciation of his work enabled him to perform it. When such a man dies it is difficult, as your committee has already said, to express in formal words the sense of a loss that has been sustained. A generation has grown up since Mr. Garrett was elected President of the Baltimore and Ohio Railroad Company, and those whose recollection enables them to appreciate the difficulties he has overcome are passing away; but whether of the young or of the old of the present day, none will hesitate to

unite in the single resolution with which the committee now concludes its report.

"Resolved, That the Board of Directors of the Baltimore and Ohio Railroad Company deplore the death of their late President, John W. Garrett, not only because of the loss that they have severally sustained, but because it is one that has fallen upon a community to develop which he devoted all the powers of a great intelligence and a persistent energy which, deterred by no obstacle, had but one purpose, the giving to Baltimore the unequalled advantages of its geographical position, and placing it as one of the greatest entrepots of the world between the mighty West of our country and the transatlantic nations.

"Resolved, That the buildings and offices of the Company be draped in mourning for thirty days.

"Resolved, That all departments and workshops of the Company be closed on Saturday, 27th inst., as a mark of respect to their deceased President, except where the public requirements render it necessary for offices to be kept open and work to be done.

"Resolved, That a copy of these proceedings be transmitted to the family of the deceased, with the expression of the profoundest sympathy of the Board of Directors in the loss that they have sustained.

"Resolved, That these proceedings be published in the daily newspapers of the city."

Treasurer's Annual Statements.

A.

STATEMENT OF THE ASSETS AND LIABILITIES OF THE

ASSETS.		
Cost of Road (including construction of new Stations, Buildings, &c., during the fiscal year)	\$26,240,987 15	
Second, Third and Fourth Tracks.....	6,022,429 03	
Rolling Power.....	17,310,944 38	
Real Estate.....	2,744,806 94	
Ohio River Bridges at Benwood and Parkersburg.....	2,383,082 19	
Metropolitan Branch Railroad.....	3,751,462 67	\$58,453,712 36
30,069 Shares of Stock, Baltimore and Ohio and Chicago Railroad Companies, of which 28,900 Shares have been transferred to Trustees for Sterling Loan redeemable in 1927 ..		1,503,450 00
Baltimore and Ohio and Chicago Railroad Companies, including advances for construction		4,846,361 84
Preferred Stock of Parkersburg Branch Railroad Company..		5,680,684 94
Stocks and Bonds, including those of Municipal and Railroad Corporations.....		4,640,249 03
Stock of the Washington County Railroad Company.....		766,290 33
Stock and Debt of the Winchester and Strasburg Railroad Company.....		593,643 85
Stock of the Washington Branch.....		1,028,000 00
Sinking Fund for the Redemption of the Ground Rents on Camden Station.....		101,191 66
Sinking Fund for the Redemption of Loan for account of the Baltimore and Ohio and Chicago Railroad Companies, \$64,000 at \$4.84.....		309,780 00
Stock of the Valley Railroad Company of Virginia		1,020,000 00
Stock and Preferred Stock of Newark, Somerset and Straitsville Railroad Company		288,079 25
Transferred to and held by Trustees, viz:		
Stocks and Bonds, including those of Railroad Corporations..	\$2,904,708 10	
Stock of the Central Ohio Railroad Company, as re-organized.	404,282 88	
Stock of the Pittsburgh and Connellsville Railroad Company.	237,682 54	
Mortgage Bonds of the Cincinnati, Washington and Baltimore Railroad Company.....	2,572,127 00	
Stock of the Mount Pleasant and Broadford Railroad Company	147,443 05	6,266,243 57
Baltimore, Washington and Alexandria Branch of the Washington City and Point Lookout Railroad—Sinking Fund transferred to Trustees.....		49,909 24
Outstanding Accounts and Loans.....		161,786 68
Cash advanced to the Pittsburgh and Connellsville Railroad Company, for payment of its debt, construction and equipment		4,293,360 20
Cash advanced to the Parkersburg Branch Railroad Company.		359,115 37
Bills Receivable.....		33,866 40
Uncollected Revenue.....		888,469 32
Materials on hand in the Machinery Department—		
Main Stem	\$862,504 19	
Trans-Ohio.....	251,456 17	1,113,960 36
Road Department—Materials on hand—Main Stem	\$ 94,447 79	
Trans-Ohio.....	294,195 64	388,643 43
TREASURER—Balance on hand in the Treasury, after payment of \$185,431.75 for interest on the Bonds of the Company, which matures October 1st, 1884.		230,758 23
		\$93,017,556 11

Treasury Department, Baltimore and Ohio Railroad Company,

A.

BALTIMORE & OHIO RAILROAD COMPANY, 30TH SEPTEMBER, 1884.

LIABILITIES.		
Stock	\$14,783,900 00	
Stock Scrip not funded.....	8,666 00	
Preferred Stock, dividends fixed and limited at six per cent..	5,000,000 00	
Surplus Fund—which represents invested capital derived from net earnings, and which is not represented by either Stock or Bonds.....	47,703,796 31	\$67,496,362 31
Loan extended at 4 per cent. Interest payable January and July.....		577,000 00
Loan redeemable in 1885, with Coupons payable in April and October, originally.....	\$2,500,000 00	
Less payment on account.....	790,000 00	1,710,000 00
City Loan, originally.....	\$5,000,000 00	
Less Sinking Fund in charge of the City of Baltimore.....	2,425,000 00	2,575,000 00
Sterling Loan redeemable in 1895. Coupons payable in March and September, £800,000, at \$1.84.....	\$3,872,000 00	
Less for Sinking Fund, £367,647 2s. 2d., at \$1.84.....	1,779,412 00	2,092,588 00
Sterling Loan redeemable in 1902. Coupons payable in March and September, £2,000,000, at \$1.84.....	\$9,680,000 00	
Less for Sinking Fund, £465,493 7s. 9d., at \$1.84.....	2,252,988 00	7,427,012 00
Sterling Loan redeemable in 1910. Coupons payable in May and November, £2,000,000, at \$1.84.....	\$9,680,000 00	
Less for Sinking Fund, £237,831 8s. 1d., at \$1.84.....	1,247,904 00	8,432,096 00
Sterling Five Per Cent. Loan, redeemable in 1927. Coupons payable in June and December. For account of Baltimore and Ohio and Chicago Railroad Companies—£1,600,000, at \$1.84.....	\$7,744,000 00	
Secured by Bonds Baltimore and Ohio and Chicago Railroad Companies, held by Trustees, £1,600,000, at \$1.84.....	7,744,000 00	
Loan redeemable in 1919. For Parkersburg Branch Railroad Company.....	\$3,000,000 00	
Secured by Mortgage Bonds of the Parkersburg Branch Railroad Company, held by Trustees.....	3,000,000 00	
Bond for purchase of the interest of the City of Baltimore in the Pittsburgh and Connellsville Railroad Company.....	\$1,000,000 00	
Less nine Annual Payments on account, of \$40,000 each.....	360,000 00	640,000 00
Bills Payable.....		1,155,139 85
Bonds to State of Maryland, due July 1, 1888. Coupons January and July, in settlement under Act of 1878, chapter 153, section 4.....		366,000 00
Bonds of the Northwestern Virginia Railroad Company, of which the payment, principal and interest, has been assumed by the Baltimore and Ohio Railroad Company, under contract of July 18th, 1864, viz:		
Third Mortgage Endorsed Bonds, originally \$500,000, reduced to.....		140,000 00
Unclaimed Dues.....		119,152 18
Washington Branch Road.....		237,205 77
		\$93,017,556 11

30TH SEPTEMBER, 1884.

W. H. JAMS, TREASURER.

B.

STATEMENT OF THE EARNINGS AND WORKING EXPENSES

Of the BALTIMORE AND OHIO RAILROAD COMPANY, including the Winchester and Potomac, Winchester and Strasburg, the Strasburg and Harrisonburg, the Metropolitan Branch, the Washington City and Point Lookout and the Somerset and Cambria Railroads, for the fiscal year ended 30th September, 1884.

Earnings of the Main Stem, including the Winchester and Potomac, Winchester and Strasburg, the Strasburg and Harrisonburg, the Metropolitan Branch, the Washington City and Point Lookout and the Somerset and Cambria Railroads.....		\$11,506,957 76
EXPENSES.		
Expenses of Transportation.....	\$2,740,303 65	
General Expenses.....	202,031 74	
Losses by Accidents, &c.....	48,339 97	
Repairs of Railway.....	785,763 27	
Repairs of Locomotives	580,037 86	
Repairs of Burden Cars.....	582,460 51	
Repairs of Passenger Cars.....	280,230 51	
Repairs of Stationary Machinery.....	104,413 63	
Repairs and Construction of Depots.....	180,877 20	
Repairs of Water Stations.....	18,074 62	
Repairs of Bridges	46,767 08	
Repairs and Renewals of Telegraph Lines.....	162,397 88	
Fuel	324,238 74	
Contingent Expenses of Machinery Department.	7,778 70	
Cleaning Engines and Cars.....	96,950 10	
Preparing Fuel and Filling Tenders.....	21,467 94	
Pumping Water.....	29,097 72	
Watching Cuts.....	33,352 69	
Watching Tunnels.....	5,101 36	
Watching Bridges.....	19,525 86	
		6,269,216 03
		\$5,237,741 73

Working Expenses, 54.48 per cent.

Treasury Department, Baltimore and Ohio Railroad Company, }
30th SEPTEMBER, 1884.

W. H. JAMS, TREASURER.

TREASURER'S STATEMENT.

37

C. *Main Stem Statement of PROFIT AND LOSS, for the Fiscal Year ended 30th September, 1884.* CR.

DR.					CR.
1883.	To Dividend of five per cent. upon the Capital Stock.....	\$739,130 00	1883.	By Balance at the Credit of this Account....	\$45,703,479 89
November 1.	" Dividend of five per cent. upon the Capital Stock.....	739,135 00	November 1.	" Dividend of five per cent. for the six months ended September 30th, 1883, upon 10,280 Shares of the Washington Branch Stock owned by the Main Stem Railroad Companies.....	51,400 00
1884.	" Interest and Taxes, including interest on Sterling Loan of 1897, issued for account of Baltimore and Ohio and Chicago Railroad Companies.....	\$3,597,186 43	1884.	" Dividend of five per cent. for the six months ended March 31st, 1884, upon 10,280 Shares of the Washington Branch Stock owned by the Main Stem Railroad Companies.....	51,400 00
May 16.	Less cash receipts, including the net earnings of the Baltimore and Ohio and Chicago Railroad Companies and the Lake Erie Division.....	1,622,893 68	April 17.	" House Rents received during the twelve months.....	20,679 89
Sept. 30.			Sept. 30.	" Earnings for the twelve months ended this day.....	\$11,506,957 76
			"	Less Expenses for the same period.....	6,269,216 03
	To Ground Rents.....	34,028 59	"	By Increment from the Sinking Fund of the Washington City and Point Lookout Railroad.....	5,895 00
	" Rent of Winchester and Potomac Railroad.....	27,000 00			
	" Rent of Winchester and Strasburg Railroad.....	5,223 00			
	" Rent of Strasburg and Harrisonburg Railroad.....	89,250 00			
	" Rent of Washington City and Point Lookout Railroad.....	33,000 00			
	" Straitsville Division, loss operating.....	48,502 28			
	" Central Ohio Division, loss operating.....	32,182 56			
	Balance carried down.....	47,703,796 31	1884.	By Balance brought down.....	\$51,130,566 51
			October 1.	Showing the increase of the Surplus Fund during the fiscal year.....	\$47,703,796 31
					1,940,316 42

Treasury Department, Baltimore and Ohio Railroad Company, }
30TH SEPTEMBER, 1884. W. H. IJAMS, TREASURER.

D.

STATEMENT OF THE ASSETS AND LIABILITIES

Of the WASHINGTON BRANCH ROAD, 30th September, 1884.

ASSETS.

Road from Washington Junction to Washington City, Double	
Track, with Real Estate, &c	\$1,650,000 00
Amount due by the Baltimore and Ohio Railroad Company.....	287,205 77
	<u>\$1 937,205 77</u>

LIABILITIES.

Stock	\$1,650,000 00
Annuity (Principal).....	20,000 00
Profit and Loss.....	267,205 77
	<u>\$1,937,205 77</u>

Treasury Department, Baltimore and Ohio Railroad Company, }
 30th SEPTEMBER, 1884.

W. H. JAMS, TREASURER.

E.

STATEMENT OF THE EARNINGS OF THE WASHINGTON BRANCH
ROAD, AND EXPENDITURES OF THE ROAD DEPARTMENT,
for the Fiscal Year ended 30th September, 1884.

Earnings.....		\$335,944 29
EXPENDITURES OF THE ROAD DEPARTMENT.		
Repairs of Railway.....	\$125,996 18	
Repairs of Depots.....	18,485 83	
Repairs of Water Stations.....	1,022 67	
Pumping Water.....	5,135 21	
Repairs of Bridges.....	4,973 25	
		155,613 14
		<u>\$180,331 15</u>

Treasury Department, Baltimore and Ohio Railroad Company, }
30th SEPTEMBER, 1884.

W. H. IJAMS, TREASURER.

TREASURER'S STATEMENT.

F.

DR. *Washington Branch Road, Profit and Loss Account for the Fiscal Year ended 30th September, 1884.* CR.

1883. Nov. 1..	To dividend of five per cent. for the half year ended 30th September, 1883.....	\$82,500 00	1883. Oct. 1..	By Balance at the credit of this account this day.....	\$262,167 68
1884. April 17.	" dividend of five per cent. for the half year ended 31st March, 1884	82,500 00	1884. Sept. 30	" Earnings for the fiscal year ended 30th September, 1884.....\$335,944 29	
Sept. 30.	" Taxes.....	9,203 06		Less Expenditures of Road Department..... 155,613 14	180,331 15
"	" Payment on account of annuity.....	1,000 00			
"	" Balance carried down.....	267,205 77			\$442,498 83
		\$442,498 83	1884. Oct. 1.	By Balance brought down	\$267,205 77

Treasury Department, Baltimore and Ohio Railroad Company, }
30th SEPTEMBER, 1884.

W. H. IJAMS, TREASURER.

G.

STATEMENT OF THE EARNINGS AND WORKING EXPENSES
Of the PARKERSBURG BRANCH RAILROAD for the Fiscal Year
ended 30th September, 1884.

Earnings.....		\$643,163 56
EXPENSES.		
Expenses of Transportation.....	\$194,231 13	
Fuel	20,688 82	
Repairs and use of Locomotives.....	46,014 91	
Repairs and use of Burden Cars.....	28,398 71	
Repairs and use of Passenger Cars.....	6,199 29	
Repairs of Stationary Machinery.....	3,434 76	
Repairs of Depots.....	7,659 44	
Contingent Expenses of Machinery Department.	49 43	
Cleaning Engines and Cars.....	6,898 58	
Preparing Fuel and Filling Tenders.....	797 85	
Repairs of Railway.....	136,635 19	
Repairs of Water Stations.....	1,373 77	
Repairs of Bridges.....	12,406 29	
Repairs of Telegraph.....	1,360 58	
Pumping Water.....	4,205 65	
General Expenses.....	5,608 29	
Taxes.....	21,698 10	
Losses by Accidents, &c.....	3,779 63	
		501,440 42
		\$141,723 14

Working Expenses, 77 96 per cent.

Treasury Department, Baltimore and Ohio Railroad Company, }
30th SEPTEMBER, 1884.

W. H. IJAMS, TREASURER.

Transportation Department Report.

OFFICE OF THE MASTER OF TRANSPORTATION,

BALTIMORE AND OHIO RAILROAD COMPANY,

Baltimore, 1st October, 1884.

ROBERT GARRETT, ESQ.,

President pro tem.

SIR:—The following is a statement of the operations of this Department for the fiscal year ended 30th September, 1884.

THE REVENUES.

The usual statements, with the comparisons and summaries, are herewith presented:

A.

STATEMENT OF REVENUE

Earned on the MAIN STEM of the Baltimore and Ohio Railroad, including the WINCHESTER AND POTOMAC, WINCHESTER AND STRASBURG, the STRASBURG AND HARRISONBURG, the METROPOLITAN BRANCH, the WASHINGTON CITY AND POINT LOOKOUT, and the SOMERSET AND CAMBRIA RAILROADS, from 1st October, 1883, to 30th September, 1884.

MONTHS.	Revenue from Passengers.	Revenue from Tonnage.	Total Revenue.
October, 1883.....	\$ 192,782 19	\$ 854,016 11	\$ 1,046,798 30
November, 1883.....	141,165 53	761,336 08	902,551 61
December, ".....	153,963 75	727,491 76	881,455 51
January, 1884.....	119,591 25	657,108 58	776,699 83
February, ".....	124,696 37	596,789 87	721,486 24
March, ".....	147,970 46	836,507 62	984,478 08
April, ".....	176,588 30	772,123 41	948,711 71
May, ".....	209,426 36	752,129 64	961,556 00
June, ".....	177,908 53	773,902 51	951,811 04
July, ".....	214,912 95	795,878 75	1,010,791 70
August, ".....	213,613 68	924,576 76	1,138,190 44
September, ".....	209,844 73	972,582 57	1,182,427 30
Totals.....	\$2,082,464 10	\$9,424,493 66	\$11,506,957 76

B.

STATEMENT OF REVENUE

*Earned on the WASHINGTON BRANCH of the Baltimore and Ohio Railroad,
From 1st October, 1883, to 30th September, 1884.*

MONTHS.	Revenue from Passengers.	Revenue from Tonnage.	Total Revenue.
October, 1883.....	\$23,534 88	\$8,768 69	\$32,353 57
November, ".....	20,214 20	6,625 77	26,839 97
December, ".....	19,626 18	6,798 70	26,424 88
January, 1884.....	14,387 43	6,125 75	20,513 18
February, ".....	15,338 29	5,864 75	21,203 04
March, ".....	18,976 48	5,563 42	24,539 90
April, ".....	20,659 22	7,272 65	27,931 87
May, ".....	21,762 98	7,157 67	28,920 65
June, ".....	22,905 56	5,422 04	28,327 60
July, ".....	25,300 72	6,184 57	31,485 29
August, ".....	27,032 98	8,219 36	35,252 34
September, ".....	21,077 41	11,074 59	32,152 00
Totals.....	\$250,866 33	\$85,077 96	\$335,944 29

C.

STATEMENT OF REVENUE

*Earned on the PARKERSBURG BRANCH of the Baltimore and Ohio Railroad
From 1st October, 1883, to 30th September, 1884.*

MONTHS.	Revenue from Passengers.	Revenue from Tonnage.	Total Revenue.
October, 1883.....	\$20,576 88	\$44,282 76	\$64,859 6
November, ".....	17,294 38	38,532 78	55,827 1
December, ".....	16,999 77	48,559 70	65,559 4
January, 1884.....	14,604 77	34,697 45	49,302 2
February, ".....	12,008 75	31,365 72	43,374 4
March, ".....	16,658 63	42,383 69	59,042 3
April, ".....	16,053 21	27,110 99	43,164 2
May, ".....	20,159 42	27,335 62	47,495 0
June, ".....	20,503 80	29,554 49	50,058 2
July, ".....	19,827 79	26,008 85	45,836 6
August, ".....	16,423 07	42,823 84	59,246 9
September, ".....	22,884 55	36,512 65	59,397 2
Totals.....	\$213,995 02	\$429,168 54	\$643,163 5

D.

SUMMARY OF REVENUE FOR THE ENTIRE ROAD FOR 1884,
Compared with the Revenue for the fiscal year ended 30th September, 1883.

MAIN STEM,

Including the WINCHESTER AND POTOMAC, WINCHESTER AND STRASBURG, the STRASBURG AND HARRISONBURG, the METROPOLITAN BRANCH, the WASHINGTON CITY AND POINT LOOKOUT, and the SOMERSET AND CAMBRIA RAILROADS.

Date.	Passengers.	Tonnage.	Total.
For 1884.....	\$2,082,464 10	\$9,424,493 66	\$11,506,957 76
For 1883.....	2,020,284 00	9,559,555 25	11,579,839 25
Increase.....	\$62,180 10	.....	.....
Decrease.....	.....	\$135,061 59	\$72,881 49

PARKERSBURG BRANCH RAILROAD.

Date.	Passengers.	Tonnage.	Total.
For 1884.....	\$213,995 02	\$429,168 54	\$643,163 56
For 1883.....	224,338 02	514,189 24	738,527 26
Decrease.....	\$10,343 00	\$85,020 70	\$95,363 70

WASHINGTON BRANCH RAILROAD.

Date.	Passengers.	Tonnage.	Total.
For 1884.....	\$250,866 33	\$85,077 96	\$335,944 29
For 1883.....	251,433 56	95,071 71	346,505 27
Decrease.....	\$567 23	\$9,993 75	\$10,560 98

	Passengers.	Tonnage.	Total.
1884.			
Main Stem	\$2,082,464 10	\$9,424,493 66	\$11,506,957 76
Parkersburg Branch.....	213,995 02	429,168 54	643,163 56
Washington Branch.....	250,866 33	85,077 96	335,944 29
Totals	\$2,547,325 45	\$9,938,740 16	\$12,486,065 61
1883.			
Main Stem.....	\$2,020,284 00	\$9,559,555 25	\$11,579,839 25
Parkersburg Branch.....	224,338 02	514,189 24	738,527 26
Washington Branch.....	251,433 56	95,071 71	346,505 27
Totals	\$2,496,055 58	\$10,168,816 20	\$12,664,871 78
Increase.....	\$51,269 87	.....	.....
Decrease.....	.....	\$230,076 04	\$178 806 17

OPERATIONS OF THE MAIN STEM.

PASSENGER TRANSPORTATION.

It is shown by Table D that the receipts from passengers for 1883 were \$2,020,284 00, and for 1884 \$2,082,464 10, exhibiting an increase of \$62,180 10.

TONNAGE TRANSPORTATION.

The receipts from tonnage transported on the Main stem in 1883, as shown by Table D, were \$9,559,555 25, and in 1884 \$9,424,493 66, exhibiting a decrease of \$135,061 59.

E.

Total number of tons THROUGH MERCHANDISE, East and West, for the fiscal year ended 30th September, 1884.....	2,275,252 tons.
The same for fiscal year ended 30th September, 1883.....	2,108,325 "
Increase.....	166,927 tons

COMPARATIVE STATEMENT OF GRAIN, &c., received at Baltimore during
the fiscal years ended 30th September, 1883 and 1884.

	1883.	1884.
Corn, bushels.....	4,944,736	3,472 940
Wheat, ".....	6,647,595	6,415,550
Barley, ".....	14,250	42,367
Rye, ".....	74,500	152,279
Oats, ".....	1,150,680	1,469,916
Total bushels.....	12,831,761	11,553,052
Total 1883.....		12,831,761
Decrease.....		1,278,709

Flour brought to Baltimore—

In 1883.....	702,975 bbls.
In 1884.....	717,258 "
Increase.....	14,283 bbls.

Live Stock brought to Baltimore—

In 1883.....	90,628 tons.
In 1884.....	82,187 "
Decrease.....	8,441 tons..

Lumber brought to Baltimore—

In 1883.....	94,266 tons.
In 1884.....	107,398 "
Increase.....	13,132 tons.

COAL TRADE.

Coal and Coke transported on the Main Stem and Branches,
inclusive of the Company's supply..... 3,268,521 tons.

Deduct delivered at various points for the Company's supply..... 439,912 "

Leaving amount transported for the public..... 2,828,609 tons.

Date.	Delivered at Locust Point.	Delivered at places in Baltimore.	Delivered at Way Stations and points West	Total.
In 1883.....	1,584,329 tons.	76,021 tons.	514,966 tons.	2,175,316 tons.
In 1884.....	2,159,013 "	68,339 "	601,257 "	2,828,609 "
Decrease.....		7,682 tons.		
Increase.. ..	574,684 tons.		86,291 tons.	653,293 tons.

COAL AND COKE.

Total Coal and Coke transported on the Main Stem and Branches 3,268,521 tons.

Pittsburgh Division..... 2,157,606 "

Trans-Ohio Divisions..... 966,548 "

Total Coal and Coke transported... 6,392,675 tons.

439,912
595,270

STATEMENT showing the EXPENSES OF TRANSPORTATION on the MAIN STEM, for the fiscal year ended 30th September, 1884, as compared with the same items for the fiscal year 1883.

	1883.	1884.
Agents and Clerks.....	\$274,069 82	\$289,788 49
Passenger Conductors, Baggage Masters and Brakemen.....	87,028 83	98,521 57
Tonnage Conductors and Brakemen	284,915 23	297,940 57
Tonnage Enginemen.....	228,365 55	235,270 85
Tonnage Firemen	105,505 61	109,174 39
Passenger Enginemen	82,812 24	88 481 69
Passenger Firemen	40,013 25	42,659 24
Tonnage Teamsters.....	2 312 35	2,293 95
Depot Laborers, handling cars and freight	340,868 34	358,144 43
Maintenance and Renewal of Stock and Harness.....	925 61	1,363 77
Oil	93,026 55	101,219 25
Tallow	43,371 32	47,651 82
Waste	34,663 01	39,232 20
Stationery, Printing and Advertising.....	47 302 61	48,799 91
Gas and Candles.....	13,274 23	12,446 72
Miscellaneous and Contingent, including Expenses of Locust Point Elevators and Baltimore and Ohio Express.....	454,424 02	532,064 94
Eastern and Western Agencies	111,186 57	140,470 90
Telegraph Operators.....	241,982 25	294,678 96
Totals.....	\$2,486,047 39	\$2,740,303 65

STATEMENT showing the EXPENSES OF TRANSPORTATION on the PARKERSBURG BRANCH, for the fiscal year ended 30th September, 1884, as compared with the same items for the year 1883.

	1883.	1884
Agents and Clerks.....	\$21,172 45	\$21,216 84
Tonnage Conductors and Brakemen.....	22,790 33	22,846 77
Passenger Conductors, Baggage Masters and Brakemen	8,711 25	8,757 85
Tonnage Enginemen.....	19,151 72	19,152 03
Passenger Enginemen.....	9,929 38	9,892 70
Tonnage Firemen	6,386 42	6,386 58
Passenger Firemen	4,950 73	4,953 55
Depot Laborers.....	26,530 55	29,695 95
Oil	8,535 44	8,501 29
Tallow.....	2,875 66	2,718 49
Waste	3,019 27	3,329 94
Stationery, Printing and Advertising.....	5,602 57	5,405 23
Miscellaneous and Contingent, including Gas, Candles and Express Expenses	16,552 06	15,801 26
Eastern and Western Agencies	17,663 01	24,947 67
Telegraph Operators.....	10,410 10	10,624 98
Totals.....	\$184,280 94	\$194,231 13

Respectfully submitted,

W. M. CLEMENTS,
Master of Transportation.

Road Department Report.



OFFICE OF THE MASTER OF ROAD,

BALTIMORE AND OHIO RAILROAD COMPANY,

Baltimore, 1st October, 1884.

ROBERT GARRETT, ESQ, *President pro tem.*:

SIR:—I submit herewith statement of the operations of the Road Department for the fiscal year ended 30th September, 1884.

REPAIRS OF RAILWAY.

This department expended \$785,768.27 for repairs of railway, embracing the maintenance of the road, renewal of ballast, and all labor and materials used in the repairs of track. This amount, compared with that of the fiscal year 1883, shows a decrease of \$10,807.58.

Maintenance of Road, consisting of surfacing, ditching, maintaining original width of road-bed and removing slips, cost \$32,125.10, showing an increase of \$8,665.85 compared with the same account for the fiscal year 1883.

Renewal of Ballast.—On this account there was expended \$57,353.28, showing an increase of \$1,914.89.

Labor and Materials for Repairs.—The amount expended in repairs for labor and materials has been :

For Labor.....	\$475,234 07
For Materials.....	221,055 82
Total.....	<u>\$696,289 89</u>

Showing a decrease of \$21,388.32 compared with the same account for the fiscal year 1883.

RECAPITULATION.

Maintenance of Road.....	\$ 32,125 10
Renewal of Ballast.....	57,353 28
Labor and Materials for Repairs.....	696,289 89
Total.....	<u>\$785,768.27</u>

4,940 tons of new steel rails were used in repairs, and 326,923 cross ties.

Cost of Watching Cuts.....	\$33,352 69
Cost of Watching Tunnels.....	5,101 36

Maintenance of Bridges.—Repairs and rebuilding. There were expended on this account:

For Labor.....	\$23,650 09
For Materials.....	23,116 99
Total.....	<u>\$46,767 08</u>

The details of which are as follows: Reese's trestle, renewed stringers and ties. Renewed tracks on No. 13 bridge. Renewed tracks on No. 27, and put in new ties and guard rails. Renewed 80 cubic yards masonry under No. 41 bridge. Rebuilt No. 36½ arch, containing 608 cubic yards of first-class masonry. Rebuilt and enlarged culvert near 26-mile post, containing 255 cubic yards masonry. Built new culvert at Sykesville, containing 260 cubic yards of first-class masonry, and lengthened 3 culverts containing 96 cubic yards masonry. Built 2 culverts near 33-mile post, containing 110 cubic yards masonry. Lengthened abutments of culvert at Duffields. Repaired culvert east of Knoxville, 43 yards of masonry. Rebuilt and enlarged culvert near 77-mile post. Put metal roof over sidewalk under No. 50 bridge. Renewed tracks on No. 52, new ties and guard rails. Retrestled bridges Nos. 63 and 65, new caps, braces, &c. Rebuilt culvert at Rawlings, containing 222 cubic yards first-class masonry. Built culvert at Deer Park, containing 64 cubic yards of first-class masonry. Built highway bridge at Oakland, leading to hotel, 120 feet long. The following bridges have been repaired and adjusted: Nos. 77, 88, 92, 97, 111, 112, 113, 114, 118, 121, 122, 123, 124, 127, 128, 130, 137, 140, 141, 142, 149, 154. Ties and guard timbers have been renewed on the following bridges: Nos. 120, 126, 129, 131, 132, 133, 135, 136, 143. Renewed chords, ties, guard and bearing timbers on No. 153 bridge at Wheeling. Highway bridge at Moundsville renewed. Ohio river bridge at Benwood painted.

Cost of Watching Bridges.....	\$19,525 86
-------------------------------	-------------

Maintenance of Depots and Buildings.—The expenditure on this account was \$180,877.20. At Locust Point, piers 8 and 9 repaired by putting in new sills entire length. Bulkhead of pier 28 repaired by driving piles and capping. Wharves at elevators A and B repaired by cutting off piles and cribbing with 12 by 12 timber. Piers 31 and 32 dredged to a depth of 27 feet, full length of pier. Piers 6 and 7, 8 and 9, and 31 and 32 painted. Blacksmith shop extended 30 feet, 20 feet high, with metal roof. Belt's wharf, floor of shed repaired. Repaired floors and pits of round house at Bailey's. An additional building, covered with iron, has been built at express warehouse, corner Howard and Barre streets, 60 feet long, 20 feet wide, 16 feet high; also a new office 32 by 10. An addition to blacksmith shop at Mount Clare, 25 by 225, 13 feet 6 inches high, with metal roof, has been built; also a shed 50 by 34, 14 feet high, put up at lumber yard. Built new fence at lumber yard, Mt. Clare Junction, 1,388 feet, 8 feet high; also at Russia, 900 feet long, 8 feet high. Coal dump at Russia, 765 feet long, has been renewed. Built fence, 510 feet long, 5 feet high, around depot building and lot at Duffields; built 750 feet of picket fence near Lynn's curve. Renewed entire floor of round house, Cumberland, and built 48 feet fence around reservoir. At Rowlesburg, built new cattle pens and chute, 2 pens each 40 by 40, chute 28 feet long; at Grafton, renewed 109 squares metal roof on machine shops; at Bellaire, repaired stock sheds and renewed 233 squares of metal roof. Between Baltimore and Cumberland 8,531 feet of platforms have been renewed and extended, and between Cumberland and Wheeling 3,148 feet.

Maintenance of Water Stations.—The expenditure on this account was \$18,074.62, the details of which are as follows: Locust Point, Elevator A built one new tub, 20 feet diameter, 12 feet high; laid 550 feet of 3-inch and 50 feet 8-inch pipe. No. 1 pump house, put in one new steam pump. Fort gate water station, repaired boiler, penstock and pipe. Riverside, built addition to pump house, 13 by 16, 15 feet high, and put in new boiler. Bailey's, repaired penstock pipe, and renewed two penstock pits. Camden, renewed tub 18 feet diameter, 12 feet high. Woodstock, renewed tubs, penstocks, &c., and laid 250 feet of 3-inch pipe. Plane No. 4, built new coal bin, and put new metal roof on

reservoirs. Frederick Junction, pump-house repaired. Slabtown, built addition to pump-house, 12 by 8, 10 feet high. Sandy Hook, new tub, 14 feet 6 inches diameter, 12 feet high, and one new boiler. Cherry Run, rebuilt penstock pits and put in one new pump. Sir John's Run, put in new boiler, and repaired pumps, pipes, &c. Patterson's Creek, water station repaired, and 37 feet of 4-inch pipe laid. Cumberland, renewed 100 feet of 1½-inch pipe. Rawlings, rebuilt penstock pits, renewed tub, and repaired pipes and penstocks. Piedmont, repaired pump-house, penstocks and pipes. Deer Park, boiler renewed and engine repaired. Engines, pumps, penstocks and pipes repaired at Oakland, Snowy Creek, Rowlesburg, Valley Falls, Benton's Ferry, Farmington, Mannington, Burton, Littleton and Cameron. At No. 70, tub 20 feet diameter, 12 feet high, renewed, and engine and penstock frame repaired. At Moundsville, built new coal house with metal roof, tubs renewed and penstocks repaired. At Wheeling, engine renewed, pumps and pipes repaired.

Cost of Pumping Water.....\$29,097 72

WINCHESTER AND POTOMAC AND WINCHESTER AND STRASBURG ROADS.

Between Harper's Ferry and Strasburg, 7½ miles have been laid with steel rails and 10,872 cross-ties have been used. Built two abutments at No. 9 bridge, containing 42 cubic yards of first-class masonry. The following bridges renewed with ties and guard rails: Nos. 10, 11, 16, 26, 38, 41, 42 and 50. Built pier between abutments of No. 55 bridge, containing 65 cubic yards masonry; rebuilt platforms at Stephenson's, 1,360 square feet; at Winchester, 5,670 square feet; at Cedar Creek, 500 square feet; and at Charlestown 4,416 square feet. Built open culvert near Vancluse, containing 36 cubic yards masonry; Strasburg Junction 75 cubic yards, and Capon Road 36 cubic yards. Put up new tub at Thatcher's water station, 16 feet diameter, 12 feet high. Put in 17 new cattle stops on line of road.

STRASBURG AND HARRISONBURG ROAD.

Between Strasburg and Harrisonburg, 6¾ miles have been laid with steel rails, and 16,307 cross-ties have been used. Rebuilt 2,785 square feet of platforms on line of road. Bridges Nos. 60 and 75 renewed

with new ties and guard rails. Culvert near Quicksburg repaired with 9 cubic yards of masonry. Built new coal chutes at Harrisonburg incline, 490 feet long. Water station at Edinburg repaired; put in new pump at water station at Broadway.

METROPOLITAN BRANCH.

9,696 crossties have been used. Bridges Nos. 9 and 12 have been rebuilt. Built new pump-house at Queenstown stock yards, 8 by 10, 9 feet high; also new tub 20 feet diameter, 12 feet high. At Big Seneca, put in new pump. At Washington Junction, rebuilt pump-house, 15 feet 7 inches by 16 feet 6 inches, 16 feet high. At Washington Grove, a ladies' waiting shed 20 by 20, 14 feet high, with metal roof, has been built. The following platforms have been relaid: Gaithersburg, 152 feet; Germantown, 130 feet; and Tuscarora, 250 feet.

WASHINGTON CITY AND POINT LOOKOUT BRANCH.

5,830 crossties have been used in renewals. All bridges have been kept in good condition.

WASHINGTON BRANCH ROAD.

Repairs of Railway.—The expenditure on this account was \$125,996.18, of which \$4,210.20 was for ditching and maintaining road-bed, and \$15,730.19 for ballast. There were used in track 1,968 tons of steel rails, and 26,870 crossties.

Repairs of Water Stations.—The expenditure on this account was \$1,022.67.

Cost of Pumping Water.....\$5,135 21

Repairs of Depots and Buildings.—The expenditure on this account was \$18,485.83.

At Hyattsville, a new station house of brick, 25 by 30 feet, one story, 14 feet high, with slate roof, has been built; also a frame waiting shed 33 by 49, 15 feet high. At Laurel, a new station house of brick, 21 by 53 feet, is now being built. 2,740 feet of platforms have been laid on line of road.

Repairs of Bridges.—The expenditure on this account was \$4,973.25. Bridges Nos. 5, 6, 7 and 10 have been adjusted. Rebuilt culvert at Montello, containing 96 cubic yards masonry, and at Hanover 166 cubic yards.

PARKERSBURG BRANCH ROAD.

Repairs of Railway.—The expenditures on this account were, viz :
 For Labor and Materials for Repairs... ..\$118,942 49
 " Renewal of Ballast..... 7 892 05
 " Maintenance of Road..... 9,800 65
 Total..... \$136,635 19

As compared with 1883 this amount shows an increase of \$5,331.64. There were used on this branch 929 tons of steel rails and 53,688 cross-ties.

Repairs of Water Stations.—The expenditure on this account was \$1,373.77.

Cost of Pumping Water.....\$4,205 65

Repairs of Bridges.—The expenditure on this account was \$12,406.29. The following bridges have been renewed with new ties, guard and bearing timbers: Nos. 1, 2½, 3, 5, 7, 8, 14, 21, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 40, 43, 46, 47, 48, 50 and 51. Rebuilt abutments of No. 18 bridge, containing 290½ cubic yards of masonry; No. 49, abutments rebuilt, containing 531 cubic yards of masonry, and built new iron bridge in place of wood. Highway bridge, west of Clarksburg, repaired. Culvert at Davisville rebuilt, containing 121 cubic yards of masonry.

Repairs of Depots and Buildings.—The expenditure on this account was \$7,659.44. Passenger platforms renewed, at Webster, 190 feet; Tyrconnell, 208 feet; Bridgeport, 165 feet; and West Union, 180 feet. The station building at Ellenboro', and the car inspector's building and telegraph office at Parkersburg, have been painted. Extensive repairs have been made to the freight depot at Parkersburg.

CONSTRUCTION.—MAIN STEM.

There have been laid $4\frac{293}{5280}$ miles of additional sidings between Locust Point and Wheeling. At Buckeye 2,450 cubic yards of first-class

masonry have been built, in addition to the 5,630 cubic yards reported last year, completing this important work.

SECOND AND THIRD TRACKS.

1½ miles of second track have been laid between Wheeling and Benwood, and 4,911 feet of third track have been laid near Sykesville.

DEPOTS AND BUILDINGS.—CONSTRUCTION.

At Locust Point, electric light engine house, 16 by 24, one story, 12 feet high, has been built of brick, with slate roof. 2,990 piles have been driven during the fiscal year, for a new pier at Locust Point. At Mt. Clare, a new passenger car shop, 245 feet in diameter, containing 22 stalls, with iron turn-table in centre, 60 feet in diameter, has been built; also a two-story annex, 119 feet 6 inches by 71 feet 10 inches by 22 feet; a brick pump-house for the fire department, 15 by 32, two stories, 24 feet high, has been built, and 7,050 feet-of pipe laid. Substantial and attractive station houses of brick, with stone foundations and slate roofs, have been constructed during the year, namely: at Woodstock, a new station house, 60 feet 9 inches by 18 feet 6 inches, one story, 14 feet high; at Sykesville, a new station and warehouse combined, 85 feet long, two stories; at Duffields, a new station house, 18 by 40, 14 feet high; at Mountain Lake Park, a new station house, 25 by 50; at Gaithersburg, a new station house, 21 feet 8 inches by 44 feet 4 inches, one story, 14 feet high; also a new freight house, 21 feet 2 inches by 24 feet 2 inches, 14 feet high; at Summit Point, a new station house, 78 by 25, one story, 14 feet high; at Oakland, a new station house is now in course of construction; at Grafton, a third-story addition has been built to hotel, 80 by 23 feet, 10 feet in clear, of brick, with metal roof; also a boiler house, 25 by 30, two stories, 22 feet high.

Respectfully submitted,

S. R. JOHNSTON,

Master of Road.



Machinery Department Report.



OFFICE OF THE MASTER OF MACHINERY,

BALTIMORE AND OHIO RAILROAD COMPANY,

Baltimore, 1st October, 1884.

ROBERT GARRETT, ESQ., *President, pro tem.*

SIR:—I submit herewith report of the operations of this Department for the fiscal year ended 30th September, 1884.

STATEMENT OF EXPENSES OF THE MACHINERY DEPARTMENT

From 1st October, 1883, to 30th September, 1884.

MAIN STEM,

Including the Winchester and Potomac, Winchester and Strasburg, the Strasburg and Harrisonburg, the Metropolitan Branch, the Washington City and Point Lookout, the Washington Branch, and the Somerset and Cambria Railroads.

Repairs and Rebuilding of Locomotive Engines.....	\$580,037 86
Repairs of Passenger, Sleeping and Parlor Cars.....	280,230 51
Repairs and Rebuilding of Tonnage Cars.....	418,597 41
Repairs and Rebuilding of Coal Cars.....	104,189 60
Repairs and Rebuilding of Stock Cars.....	59,673 50
Repairs and Operating of Stationary Machinery.....	104,413 63
Cleaning Engines and Cars and putting away Engines.	96,950 10
Preparing Fuel and Filling Tenders.....	21,467 94
Contingent Expenses.....	7,778 70
Fuel.....	324,238 74
	<hr/> \$1,997,577 09

PARKERSBURG BRANCH.

Repairs of Locomotive Engines	\$ 46,014 91
Repairs of Passenger Cars.....	6,199 29
Repairs of Tonnage Cars.....	23,713 32
Repairs of Coal Cars.....	1,885 10
Repairs of Stock Cars.....	2,800 29
Repairs of Stationary Machinery.....	3,434 76
Cleaning Engines and Cars and putting away Engines.	6,898 58
Preparing Fuel and Filling Tenders.....	797 85
Contingent Expenses.....	49 43
Fuel	20,638 82
	<hr/> 112,482 35
	<hr/> \$2,110,060 34

The equipment of locomotive engines is, namely :

In service 30th September, 1883.....	574
Built in fiscal year of 1884.....	40
Total	614
Less withdrawn from the service.....	11
Present equipment.....	603

These 40 engines were built at the Mount Clare Works. 13 are of the Consolidation pattern for freight traffic, with cylinders 20 by 24 inches, 50 inch driving wheels, 8 drivers connected, with a two wheel pony truck, weighing 107,250 pounds; 19 are of the Mogul pattern for freight traffic on the Trans-Ohio Divisions, with cylinders 19 by 24 inches, 60-inch driving wheels, 6 drivers connected, with a two wheel pony truck, weighing 98,000 pounds; 7 for passenger service, with cylinders 19 by 24 inches, and one with cylinders 18 by 24 inches, and four drivers of 69 inches in diameter, weighing 91,000 pounds. Eleven of the engines replace that number withdrawn from the service. Twenty-nine of the 40 engines, costing \$263,044.96, have been charged to Rolling Power, and 11, costing \$96,654.31, have been charged to the Repair account.

COMPARISON OF MILES RUN BY LOCOMOTIVE ENGINES.

	Main Stem.	Park. Branch.	Wash. Branch.	Total.
1883.....	8,857,694	1,029,780	857,483	10,744,957
1884.....	9,453,320	1,025,617	926,840	11,405,777
Increase	595,626	.....	69,357	660,820
Decrease.....	.....	4,163	.....	.....

During the year 157 engines have received thorough repairs, costing \$254,435 90. The motive power is in excellent condition.

The car equipment is as follows :

In service 30th September, 1883.	17,339
Added in fiscal year of 1884.....	4,048
Less broken up and worn out.....	396
	3,652
	20,991

These 3,652 cars cost \$1,772,023.64, and have been charged to Rolling Power. Of the entire number of 4,048 cars, 3,582 have been built at the Company's shops, and 8 flat-bottom and 458 iron coal cars have been purchased. The cars thus bought, built and rebuilt by the Company consist of 30 eight-wheel passenger, 51 feet 8½ inches long, with large windows and double blinds, finished in the interior with solid mahogany and bronze trimmings, decorated with oak head linings removable in sections, and are furnished with three double-burner bronze lamps; seven baggage cars, 51 feet 8½ inches long, with standard trucks and all modern conveniences; one officer's car, 56 feet long, with six-wheel trucks; 5 express cars 45 feet long; 300 eight-wheel stock cars 33 feet long, and 12 eight-wheel stock cars 28 feet long, each of 40,000 pounds capacity and equipped with the air-brake; 602 eight-wheel house cars 33 feet long, each of 40,000 pounds capacity; 798 eight-wheel house cars 28 feet long, each of 40,000 pounds capacity; 199 eight-wheel house cars 30 feet long, each of 40,000 pounds capacity; 7 eight-wheel house cars 34 feet long, each of 40,000 pounds capacity; 1,070 eight-wheel iron coal cars, each of 40,000 pounds capacity, and 12 of 26,000 pounds capacity; 871 gondola, 66 flat bottom, 3 dump, 2 riggers, 38 caboose, 1 refrigerator, 1 derrick, 1 camp, and 22 side dump cars. 396 cars, costing \$142,554.68, built to replace those lost to the service, have been charged to the Repair account. The capacity of 177 cars has been increased from 26,000 to 40,000 pounds; 40 house cars have been arranged for ventilation; 513 cars have received thorough repairs, and 233 have been repainted. The cost of these repairs and improvements, \$187,660.94, has been charged to the Repair account. \$12,447.01 have been charged for new and additional plant in shops, as follows: For Mount Clare, four lathes, one 11,000 pounds steam hammer, one blower, one beading machine, one pipe former, two drills, two testing machines, one planer, one No. 3 tenoner, one No. 4 condenser with motor, 26 anvils, 24 forges, etc. for new blacksmith shop, and one bolt heading machine; for Bailey's Station, two 20-ton hydraulic jacks, two lathes, and one buffing stand; for Leadenhall Station, one punching machine, one governor, and one pair of rolls for bending iron; for Locust Point shop, one No. 2 blower, one portable

forge, one stationary engine and boiler, and one punching machine; for Washington, one emery wheel stand and wheels; for Martinsburg, six hydraulic jacks; and for Parkersburg, one spike furnace. The stationary machinery and tools are in good condition.

There have been added to the plant of the mill at Cumberland during the year two spike machines, one hot pile buggy, one set of new shears, and one testing machine. This new plant cost \$3,863.97, and has been charged to Construction. The furnaces, buildings and machinery of the mill are in good working condition. The operations for the year have been very large and satisfactory.

I have to express my acknowledgments to the officers and employes of this department for their efficient service.

Respectfully,

A. J. CROMWELL,

Master of Machinery.

Trans-Ohio Divisions.

BALTIMORE AND OHIO RAILROAD COMPANY,

TRANS-OHIO DIVISIONS,

OFFICE OF GENERAL MANAGER,

NEWARK, OHIO, 1st October, 1884.

ROBERT GARRETT, ESQ., *President, pro tem.*

SIR: I submit herewith statement of the operations of the Trans-Ohio Divisions for the fiscal year ended 30th September, 1884.

CENTRAL OHIO DIVISION.

Comparison of Earnings and Expenses for the fiscal year 1884 with 1883.

	1883-1884.	1882-1883.
Earnings.....	\$1,169,772 62	\$1,103,838 65
Expenses.....	793,134 76	716,050 21
Earnings more than Expenses.....	\$376,637 86	\$387,788 44
Miles run by Engines.....	1,662,710	1,502,343

ROAD DEPARTMENT.

Railway.—338 tons of steel rail and 358 tons of iron rail have been laid in the track between Bellaire and Newark, and 709 tons of steel between Newark and Columbus. 14½ miles of track have been re-ballasted between Bellaire and Newark, and 5 miles between Newark and Columbus. 58,422 cross-ties, which include those laid in 1.96 miles of new sidings, have been placed in the track between Bellaire and Newark, and 40,222 between Newark and Columbus, which include those laid in 19 miles of new sidings, and 21,191 for second track. 45 miles of fence have been built between Bellaire and Newark, and 1.59 miles between Newark and Columbus. 15 new cattle guards, 8 of which are on the new second track, have been built between Columbus and Newark, and 34 have been rebuilt on the entire Division. The second track has been completed, and is now in use from Columbus to Caldwell, a distance of 1.64 miles, and from Granville Junction to

Lockport, a distance of 2.86 miles. The grading from Caldwell to Big Walnut is partially completed, and the culvert masonry all in. Under a contract with the Bellaire, Zanesville and Cincinnati (narrow-gauge) Railway for terminal facilities at Zanesville, a third rail has been laid from the junction of their road to the Baltimore and Ohio Railroad depot, a distance of about $1\frac{1}{2}$ miles. By this contract the Baltimore and Ohio Railroad Company secures the control of the business of the narrow-gauge received at Zanesville for trans-shipment. At Bellaire 3,353 feet of track, 1,641 feet of which is upon trestle work, have been built from the north end of the Baltimore and Ohio yard to the Bellaire Nail Works, where a convenient system of sidings to their buildings has been put in. The importance of this valuable work has been manifest, from the date of its completion, by the large traffic over it.

Bridges.—In connection with double tracking the Columbus and Newark Division, it became necessary to erect double track bridges over the streams, Alum Creek and Big Walnut. The sub-structures have been enlarged from single to double track, and iron double track bridges erected as follows: Bridge No. 1, over Alum Creek; $1,612\frac{2}{7}$ cubic yards of masonry have been erected in two abutments and piers, upon which two spans, 90 feet $1\frac{1}{2}$ inches and 51 feet 2 inches respectively, have been erected. Bridge No. 2, over Big Walnut Creek; $632\frac{20}{27}$ cubic yards of masonry have been built in abutments, piers and retaining walls, upon which three spans have been erected, two of 112 feet each, and one of 98 feet 6 inches. Bridge No. 15 has been replaced with an iron truss of 46 feet span; 46 yards of masonry were built in the abutments. Bridge No. 16 has been replaced with an iron truss, 64 feet 4 inches long; 42 cubic yards of masonry were built in the abutments. Bridge No. 21 has been replaced with an iron truss, 92 feet 5 inches long; $38\frac{2}{3}$ cubic yards of masonry were built in the abutments. Upon the masonry reported last year as having been erected at truss bridge No. 22, an iron truss 83 feet 6 inches long has been erected. Truss bridge No. 29 has been replaced with an iron truss, 67 feet 8 inches long; 58 cubic yards of masonry were built in the abutments. Truss bridge No. 35 has been replaced with an iron truss, 92 feet long; 52 cubic yards of masonry were built in the abutments. Truss bridge

No. 38 has been replaced by an iron truss of 112 feet 6 inches span ; 47 cubic yards of masonry were built in the abutments. All of these iron truss bridges were constructed at the Company's shops at Mt. Clare, and are not only substantial, but ornamental structures. By a heavy land slide which occurred at the fill known as the Barnesville Trestle Fill, a portion of the arch culvert at that point was carried away ; 187 cubic yards of masonry have been built in restoring the damaged portion. In preparing the masonry for iron superstructures, 54 cubic yards at bridge No. 25, and 59 cubic yards at bridge No. 26, have been built. At bridge No. 4, iron I beam stringers have been substituted for the former wooden ones ; the ties and the stays have been renewed and the bridge painted. The ties, the stays and floor beams, on bridge No. 11, and the track stringers on bridge No. 28, have been renewed. The floor beams have been partially renewed on bridges Nos. 8, 25, 28, 30, 43 and 44. The iron bridge at Zanesville has been repainted, and two ice breaks have been rebuilt. The trussed girder at west end of bridge No. 7 has been replaced with iron I beam girders. An overhead farm bridge 56 feet long has been rebuilt, west of Concord, and one 20 feet long east of Sonora. 27 feet lineal of trestle work have been rebuilt, and I beam stringers substituted for wooden ones. 62 feet lineal of stone culverts, with I beam stringers, have been built between Columbus and Newark. 553 feet lineal of new box sewers have been put in, and 113 feet lineal rebuilt. For the purpose of obtaining proper drainage for the shop grounds at Bellaire, a stone box culvert, containing 219 cubic yards of masonry, has been built. All bridges and trestles have been kept in good repair.

Depots and Buildings.—At Bellaire a depot, 24 by 88 feet, has been built, under a contract with the Bellaire, Zanesville and Cincinnati (narrow-gauge) Railway, for their accommodation, and a suspended foot-walk erected, connecting it with the Baltimore and Ohio depot. By this arrangement the Baltimore and Ohio Company secures, as at Zanesville, the control of business for Eastern points received at Bellaire. The first story of the Baltimore and Ohio depot has been fitted up for a freight office, and the balustrade and one-half of the passenger platform have been rebuilt. The track scale has been moved and re-erected near the

signal switch; 50 yards of masonry have been built in the foundations. At the Children's Home, near Barnesville, an octagonal passenger room and 160 square feet of platform have been built. At Barnesville the stock yards, 100 by 100 feet, have been moved and rebuilt, and a room for dining-car employes fitted up in the second story of the depot. At Spencer's an addition, 14 by 16 feet, has been built to the depot, and the freight platform rebuilt. At Morgan, the junction with the Cincinnati, Wheeling and New York Railroad, a depot building, 21 by 50 feet, with slate roof, and 4,644 square feet of platform have been erected for the joint business of the companies. At Concord 1,800 square feet of platform have been built and the stock yards extensively repaired. At Cambridge and Norwich the stock chutes have been rebuilt. Two hundred and forty square feet of platform have been built at the Quaker City Glass Works, and 300 square feet rebuilt at Salesville. At Zanesville the saw shop, which was destroyed by fire February 8, has been replaced with a building 74 by 137 feet, and an engine-room, 16 by 36 feet, with slate roofs. An addition, 14 by 34 feet, has been made to the tool and lumber shed. The car shop, store house and paint shop have been reroofed. Seventy-five cubic yards of masonry have been built in foundations for machinery at the shops. An octagonal watch-box and semaphore signal have been erected at the crossing with the Cincinnati and Muskingum Valley Railway. The stock yards have also been extensively repaired. At Pleasant Valley the tool house and stock yards have been rebuilt. At Clay Pools the roof of the section house has been renewed. The roof of the Globe House at Newark has been renewed. The property formerly known as the Buckeye Car Works, at Columbus, was purchased in the early part of the year by this Company. The shops are in successful operation, with capacity to turn out ten cars per day. The smith shop, 42 by 104 feet, was destroyed by fire before the purchase, but has been rebuilt, with an addition 42 by 42 feet, and the entire structure covered with slate. $10\frac{2}{3}$ cubic yards of masonry have been laid in a foundation for a track scale at this place. A neat two-story office for train dispatchers and yard masters has been built upon elevated ground, and commands not only a full view of the yard, but for a long distance of the track

approaching Columbus. The grounds have been graded and sodded and enclosed with a neat fence. All depots and buildings have been maintained in good repair.

Water Stations.—At Spencer's and Concord wells have been sunk to furnish an additional supply of water. At the latter station 560 feet of 3-inch pipe have been laid, connecting the well with the pump, and a new steam pump put in the station. At Newark, 480 feet of 6-inch pipe, and 40 feet of 3-inch, have been laid, and a new penstock erected at the east end of the yard. At Union, a frost-proof tub 16 by 20 feet has been rebuilt. All water stations have been maintained in good working order.

LAKE ERIE DIVISION.

Comparison of Earnings and Expenses for the fiscal year 1884 with 1883.

	1883-1884.	1882-1883.
Earnings.....	\$1,016,507 95	\$999,128 38
Expenses.....	754,808 14	707,347 22
Earnings more than Expenses.....	\$261,699 81	\$291,781 16
Miles run by Engines.....	1,407,740	1,320,012

ROAD DEPARTMENT.

Railway.—667 tons of steel rail and 304 tons of iron rail have been laid in the track. 5.52 miles of track have been rebalasted. 49,614 cross-ties have been placed in the track. Included in this number are those laid in 1.73 miles of new sidings. 9.78 miles of fence have been erected. Three new cattle guards have been built and 18 rebuilt. At Sandusky 671 feet lineal of additional ore storage trestle have been built and the necessary tracks laid. To increase the yard facilities at this point the entire system of tracks has been rearranged so that the tracks to and on each dock can now be worked without interference with the others.

Bridges.—Truss bridge No. 1 has had the floor beams renewed. Four iron I beam girders, two of 32 feet and two of 34 feet have been placed on the trestle work at Belleville, and the ties and tie stays on

the entire trestle renewed. Two spans of iron I beam girders, each 32 feet long, have been placed on the trestle on joint track at Mansfield. 36 feet lineal of trestle work have been rebuilt, and on a large amount of trestle work extensive repairs have been made. Iron I beam stringers have been substituted for wooden on 442 feet lineal of trestle work. At bridge No. 3, $207\frac{2}{3}$ cubic yards of masonry have been built in the south abutment, and 9 cubic yards in preparing the pier to receive an iron superstructure. At Belleville $118\frac{1}{2}$ cubic yards of masonry have been erected in a pier to support an iron superstructure. At Shelby Junction 150 cubic yards of masonry have been built in two abutments for an iron superstructure at bridge No. 14. For the purpose of securing proper drainage and sewerage for the depot grounds at Sandusky, a stone box culvert, 300 feet long, has been constructed. All bridges and trestles have been maintained in good repair.

Depots and Buildings.—At Sandusky, 61 feet of the ore dock has been rebuilt, and all the docks extensively repaired. The passenger depot has been moved, re-roofed and fitted up for a car shop. An addition, 32 by 60 feet, has been made to the machine shop, and the floor and roof entirely renewed. One half of the floor in the round house has been renewed, and the turn table replaced by an iron one of larger dimensions. A transfer platform, 10 by 75 feet, has been built. At Monroeville an arrangement has been perfected with the Wheeling and Lake Erie Company for joint buildings and an interchange of business; in accordance with which the passenger depot of the Wheeling and Lake Erie Company has been moved to the Baltimore and Ohio right of way, and a freight house, 20 by 50 feet, with the necessary platforms, erected. An extension 14 by 95 feet has been built to the freight platform at Chicago Junction. The coal chutes at Alta, with the trestle approach, 435 feet long, have been rebuilt. At Belleville, a neat passenger and freight depot, with slate roof, and 1,818 square feet of platform, have been erected on the depot grounds lately purchased, whereby ample accommodations have been secured for the business of the station. An aggregate of 4,318 square feet of platform has been rebuilt at Havana, Centerton, Spring Mill, Vanatta's, Plymouth and Shelbys town. At Newark, an addition has been made to the

foundry, the sand house has been rebuilt, and 125 cubic yards of masonry have been built in foundations for track scale, core-oven, furnaces, cupola, and other improvements. A power house has been built, in which a steam pump and boiler have been placed. A well has been dug, and pipes laid for the new system of water supply, and for protection to the shops from fire. A new track scale has been erected at the shops, and 640 square feet of platform have been built at the freight house. The coal chutes and turn table have been repaired. All depots and buildings have been kept in good condition.

Water Stations.—At Mansfield, 511 feet of water pipe have been laid, connecting the city mains and the penstock.

STRAITSVILLE DIVISION.

Comparison of Earnings and Expenses for fiscal year 1884 with 1883.

	1883-1884.	1882-1883.
Earnings	\$168,532 82	\$164,781 04
Expenses	167,775 25	145,269 39
Earnings more than Expenses.....	\$757 57	\$19,511 65
Miles run by Engines.....	316,783	289,808

ROAD DEPARTMENT.

Railway.—1,008 tons of steel and 159 tons of iron rail have been laid in the track. 3.77 miles of track have been reballasted. 22,490 cross-ties have been placed in the track, included in which number are those laid in .58 miles of new sidings. 11.64 miles of fence have been built. 2 cattle guards have been built and 16 rebuilt. In Bristol tunnel a large number of trestles has been renewed and intermediate ones put in.

Bridges.—Trussed girder bridges Nos. 7, 8, 9 and 10 have been rebuilt with iron I beam girders 32 feet long. 36 feet lineal of trestle work have been rebuilt, and in 550 feet lineal the bents have been renewed. On 308 feet lineal iron I beams have been substituted for the former wooden stringers. 244 feet lineal of new box sewers have been put in. All bridges and trestles have been kept in good repair.

Depots.—At Thornport the stock-yard has been rebuilt, and at Somerset a watch-box has been built. At Junction City a new passenger and freight depot, with slate roof and 1989 square feet of platform, have been built, and 360 square feet of platform rebuilt. At Shawnee 185 square feet of platform have been built and 450 square feet rebuilt. All depots and buildings have been maintained in good order.

Water Stations.—The water stations at Glenford and Junction City have been rebuilt. At the latter point 540 feet of 5-inch pipe have been substituted for the same quantity of 3-inch in the system of supply pipes. All water stations have been kept in good working order.

CHICAGO DIVISION.

Comparison of Earnings and Expenses for the Fiscal Year 1884 with 1883.

	1883-1884.	1882-1883.
Earnings.....	\$2,046,880 53	\$1,878,167 22
Expenses.....	1,557,892 57	1,304,664 10
Earnings more than Expenses.....	\$488,987 96	\$573,503 12
Miles run by Engines	2,419,439	2,034,651

ROAD DEPARTMENT.

Railway.—1,678 tons of steel rail have been laid in the track. 168,564 cross ties have been placed in the track, included in which number are those laid in 1,246 miles of new sidings. 72 cattle guards have been rebuilt and 46 miles of wire fence erected.

Bridges.—The wooden stringers on the iron bridge at Tiffin have been replaced by iron I beams and the ties and tie stays renewed. 30 trestles have been rebuilt and iron I beam stringers substituted for wooden ones, and new ties and tie stays put on, and the bents in nine trestles have been renewed preparatory to putting on iron I beam stringers. All bridges and trestles have been kept in good repair.

Depots and Buildings.—At Chicago Junction 7,900 square feet of platform were rebuilt, and 10½ yards of masonry were laid in rebuilding the ash pit, and in foundations for boiler at the shops. At Fostoria 560 square feet of platform and 200 square feet of sidewalk have been

rebuilt. At Deshler 1,064 square feet of platform, and the incline to the coal chutes have been rebuilt. At Sherwood the passenger room and office have been ceiled, and 100 square feet of sidewalk rebuilt. At Tiffin 240 square feet of sidewalk, and 1,600 square feet at Defiance, have been rebuilt. 736 square feet of platform at Mark Center, and 360 square feet at St. Joe, have been rebuilt. At Garrett the turntable has been strengthened, the incline to the coal chutes and 2,100 square feet of sidewalk rebuilt, and extensive repairs made to the shops. At Walkerton the incline to the coal chutes has been rebuilt. At South Chicago extensive repairs have been made to the shops and passenger depot, and the incline to the coal chutes rebuilt. At Chicago a new floor has been put in the baggage room, and 1,050 square feet of team track rebuilt. All other depots and buildings have been maintained in good repair.

Water Stations.—33 yards of masonry have been built in penstock pits at Hicksville, St. Joe and Bremen. All water stations have been kept in good working order.

Construction.—12.46 miles of siding have been laid ; 67 miles of track have been ballasted ; 10 new cattle guards, 2.4 miles of wire fence along the line and 4,280 feet lineal of picket fence around the shop ground at South Chicago have been built ; two new bumping posts have been erected in Chicago yard ; 5,933 feet lineal of trestle work, containing 118,617 cubic yards of earth, have been filled and converted into embankment. The city authorities of South Chicago having raised the grade of the streets 6 feet, made it necessary for our main and side tracks, crossing the streets, to be raised to grade. The large amount of siding within the limits of the city, the height the tracks had to be raised and the material for making the change having to be hauled 20 miles, have occasioned a large outlay for labor. The raising of the Auglaise river bridge has been completed, eight artificial stone bridge seats having been put in. Three spans of iron truss, each 102 feet long, constructed at the company's shop (Mt. Clare) have been erected at the St. Joe River. 344 cubic yards of masonry have been built in abutments at Bear Creek, upon which one deck span of iron truss 49 feet long has been erected. At Chicago Junction 22 yards of masonry have been built in an extension to box culvert. At trestle 145, 216 cubic

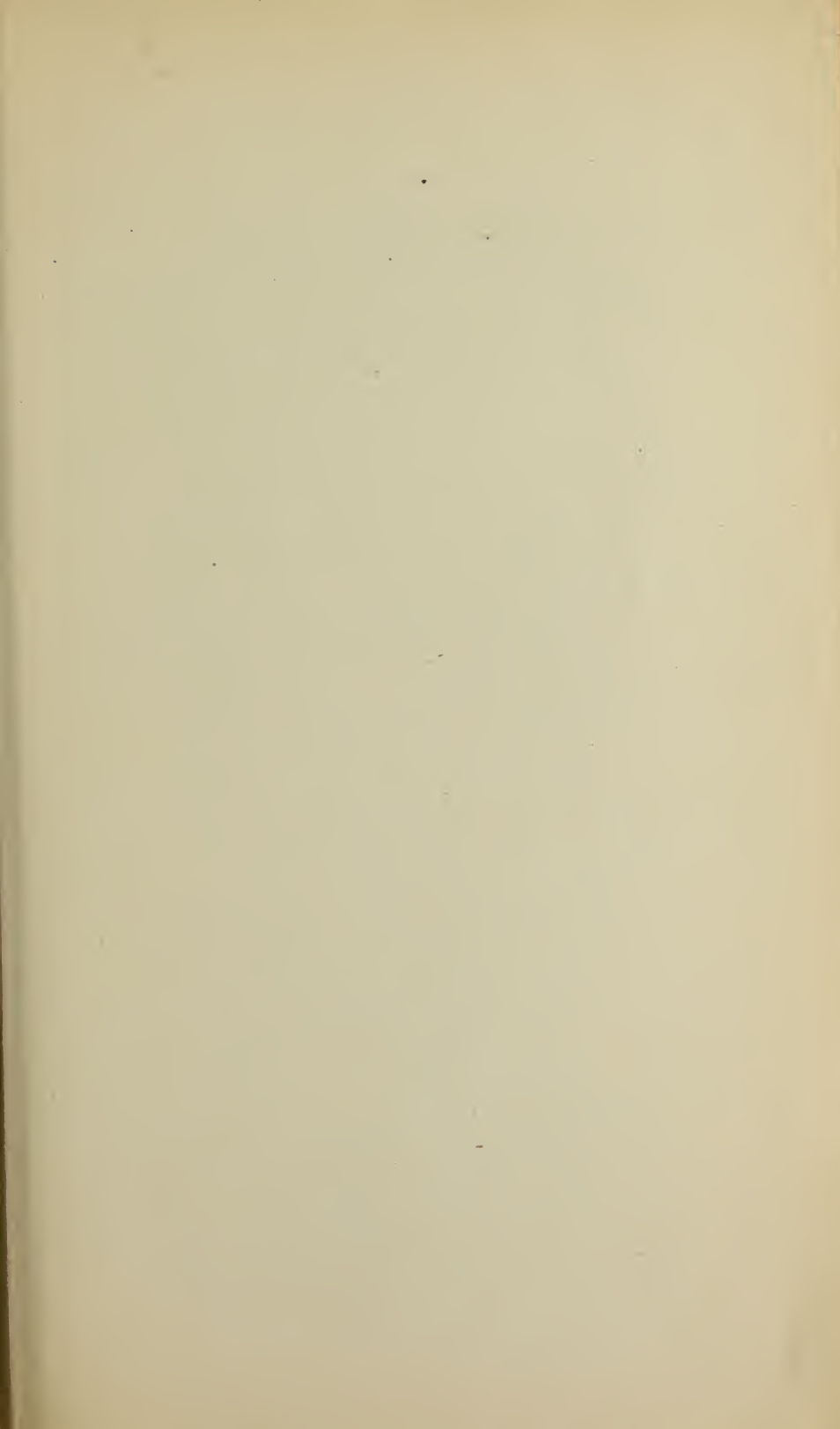
yards of masonry have been built in an arch culvert of 10 feet diameter, and at trestle 147 an arch culvert of similar diameter has been built, containing 493 cubic yards of masonry. A box culvert containing $24\frac{4}{27}$ cubic yards of masonry has been built at trestle 169. $330\frac{1}{2}$ cubic yards of masonry have been erected in abutments at trestle 170, upon which iron I beams have been placed. An ice-house has been built at Chicago Junction, a coal-house at Bascom, and a brick freight-house, with slate roof, at Auburn Junction. At Garrett a floor has been laid in the boiler shop, steam heaters have been placed in the depot building and offices, and $14\frac{1}{2}$ cubic yards of masonry have been built in foundations for coal bin at the depot, and an 18-inch sewer, 556 feet long, has been laid through the depot grounds, connected with the county drain, to afford additional drainage for the Company's grounds. At Union Center a passenger depot, with bay window, has been erected. At South Chicago a weighmaster's house has been built; 15 additional stalls have been built to the brick round-house, completing the building to a full circle of thirty stalls, the work on which is nearly finished. At Chicago a gallery has been placed in the baggage room, and an office constructed in the freight depot. New standard track scales, 34 feet long, have been erected at Hicksville and Wellsboro. At Hamler a well 15 feet in diameter and 25 feet deep, has been dug at the water station and walled with brick.

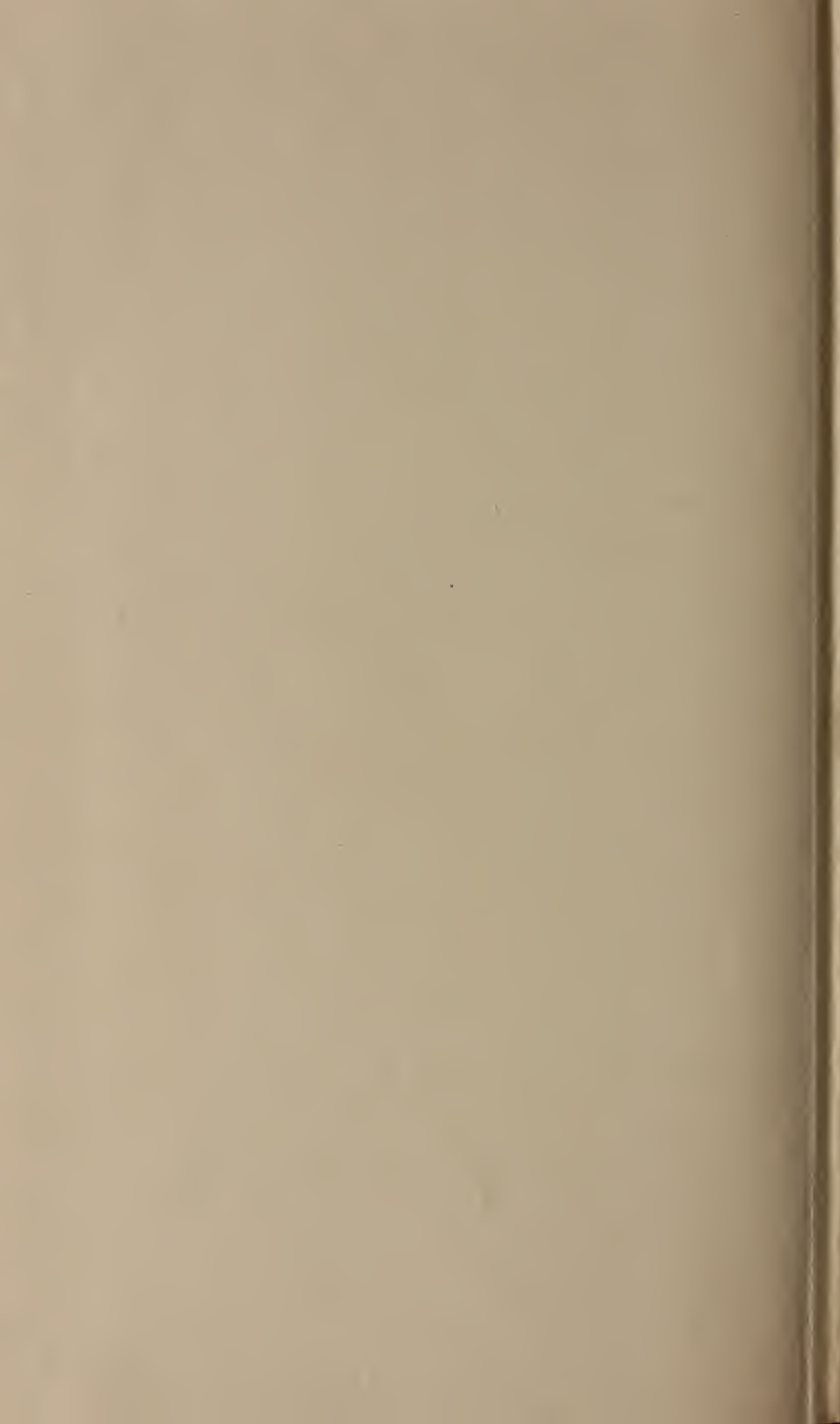
Respectfully submitted,

G. J. FOREACRE,

General Manager Trans-Ohio Divisions.







DO NOT CIRCULATE

